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CALGARY, ALBERTA

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CANADIAN PACIFIC RAILWAY
COLONIZATION DEPARTMENT

CALGARY, ALBERTA
CANADA

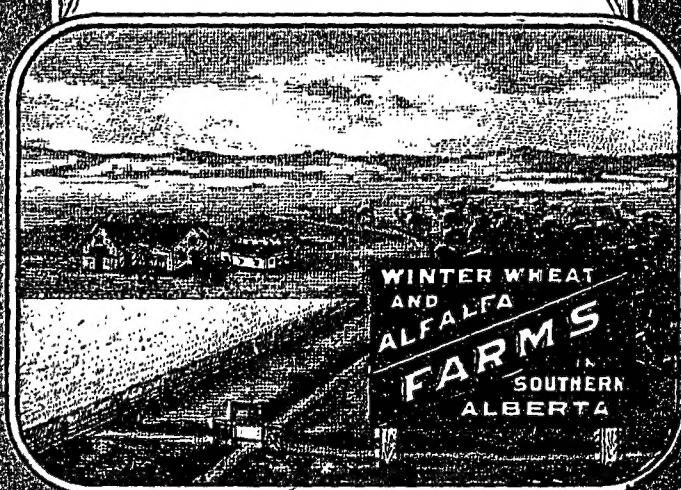
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FACTS

CONCERNING THE

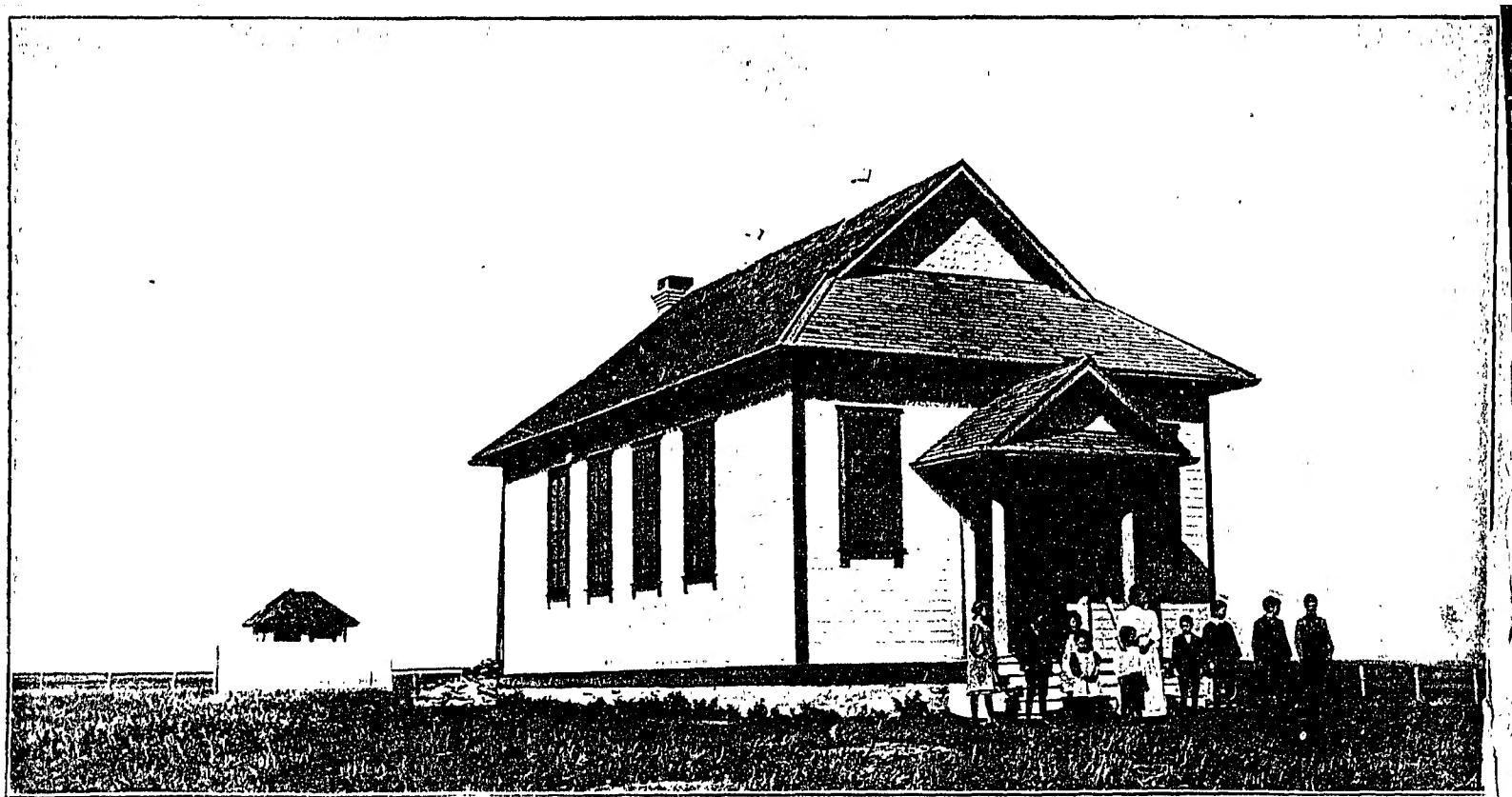
BOW RIVER VALLEY

SOUTHERN ALBERTA
CANADA.



WINTER WHEAT
AND
ALFALFA
FARMS
IN
SOUTHERN
ALBERTA





The Model Schoolhouse in the Irrigation Block.

INTRODUCTION

AQUIREMENT has been the ambition of all peoples and all nations since the beginning of time. When the world was large and the people few, and confined by no divisional lines of latitude and longitude, acquirement was along the line of simple personal effects that might be transported from place to place in the nomadic wanderings of their possessors. Gradually, as there came into the minds of those early wanderers a desire for a fixed habitation—a home—acquirement took on a new significance and lands in time became a large part of their possessions. As from these small bands nations sprang up and grew, the standard of values gradually shifted from personal to real property, the acquirement of which, from that day to this, has been the ambition of all nations and of their individual units.

Whether or not one be in search of new lands or a new home one cannot but be interested in a subject that deals

largely in a "World-Ambition." This folder contains facts pertaining to a country—Western Canada, and Southern Alberta in particular—where the private individual has a last opportunity for the acquirement, at a nominal cost, of that which has been for ages the goal of nearly all human endeavor; facts that should be the property of all those who are interested in the world's doings of to-day.

While the past few years, with their attendant publicity, have done much to break down the almost impenetrable wall of mystery and misrepresentation set up by the Hudson's Bay Company, a few centuries ago, and have materially helped to remove from the minds of many preconceived misconception as to the climate, soil and extent of this great Western Empire, the facts and figures contained herein will deal with the actual conditions of to-day, and permit of an intelligent forecast as to the future of a country that is destined to become one of the world's great factors in the production of food stuffs.

The Awakening of Western Canada

Following the Hudson's Bay Company, with its centuries-old story of a land of ice and snow, came the ranchers, who for years stood as a barrier to the settlement of Southern Alberta. With their stock knee-deep in the luxuriant grasses of its plains and undulating hills, they told the intending settler that nothing could be grown but grass, and that in certain years not even grass could withstand the prolonged drouth and heat frequently recurring in this province. In the majority of cases these reports had the desired effect, and those who had come to farm either left the province or turned to other lines of work. However, there were a few who required further assurance than the mere statements of those whose interest was opposed to the cultivation and the fencing of the ranges, and as a result small areas were taken up and sown to cereals. The results were astonishing. But in such widely separated and isolated districts were these few successful experimentalists located that their successes were heard of very rarely. However, they were occasionally brought to the light of day and there would then follow a few more successful experiments. Each one had its effect on a friend or acquaintance in the East or across the border, until 1897, when the tide of immigration began to flow in earnest. And like a great tidal wave it has swept everything before it, driving the rancher and his stock back to the foothills, and away from the railroads. Where for years his cattle and horses roamed at will, to-day the country is cut up into farms which are fenced and are producing annually fine crops.

The United States is now practically settled. Its agricultural lands are more than spoken for, and its citizens are looking to Western Canada as the one spot where good land can still be bought cheaply. The question now being asked by those who wish to avail themselves of the present opportunity is, "How long will these lands be open for settlement at the present prices?" The answer is that it cannot be for long, as the world's available supply of land is rapidly decreasing while values are steadily increasing.

Southern Alberta

None but those who have lived in a new country can realize what is really taking place at this time in the way of settlement in Southern Alberta. There has been nothing in the world to equal it. Immigration to the United States was considered phenomenal, but it started very slowly and it took

years for the immigration figures of Canada to jump from 5,000 to 200,000 a year. In the settlement of the United States there was the Eastern Hemisphere to draw from. Canada has that and the United States, too, from which to draw, and this means a much more rapid settlement here than the latter ever knew.

With the extermination of the buffalo, the country was claimed by the rancher with his cattle that fed and fattened for market in this great pasture. Like the buffalo and the Indian, the rancher has had his day, and the farmer with his plow and reaper has come to his own, and he is going to hold it. Where in the past, buffalo and cattle ranged throughout the entire year, to-day the valley is dotted with happy homes, surrounded by rich acres that are advancing in value yearly.

Bow Valley Reservation Open for Settlement

In the year 1894, the Dominion Government withdrew from sale and homestead entry a tract of land containing some millions of acres located east of the City of Calgary, along the main line of the Canadian Pacific Railway. The object of this reservation was to provide for the construction, ultimately, of an irrigation system to cover the fertile Bow River Valley. It was realized that such a project could only be successfully accomplished by so administering the lands embraced within the tract in question, that the promoters would not be hampered by any vested interests created by the alienation from the Crown of any of these lands. The project, the greatest on the American Continent, is now being pushed to its completion.

While subsequent events have amply justified the reservation of this enormous area of land, so fertile and so favorably situated, immediately adjoining the largest city in Alberta, and traversed by the main line of Canada's transcontinental railway, a hardship was, perhaps, inflicted upon the early settlers, who were thus compelled to go further back for locations. What was their loss, is, however, the gain of those who are at this time looking for new homes and appreciate the opportunities presented in this block of land.

The Canadian Pacific Railway Company undertook to construct the gigantic irrigation system above referred to, and selected as part of its land grant a block comprising three million acres of the best agricultural lands, which has now been opened for colonization.

Soil

The soil along the Bow Valley, a black sandy loam, underlaid with a good clay subsoil, is rich in the accumulated humus of centuries. This with the silt deposit of ages has produced a soil of great depth and of a richness almost beyond belief. The gently undulating hills and rolling prairies of this valley are devoid of rock, sage brush or cactus, so commonly found south of the line. These lands are ready for the plow without an expense of \$3 to \$5 per acre for clearing, which usually is required in the Western and Southwestern States.

It is recognized that there are certain substantial agricultural advantages in connection with lands located in sub-humid districts. It is a fact that the richest lands in America lie in the vicinity of the 100th Meridian, where the rainfall is the lowest. The reason for this is perfectly clear. In humid countries, the soil is continually subjected to leaching by heavy rains. The water penetrates the sub-soil, washing with it valuable plant foods, which it is thus impossible to retain near the surface, where it is required for the sustenance of the crops. This accounts for the worn-out lands of the Eastern States, as compared with the lands in the semi-arid districts of Oregon, Washington and Idaho, that have been cropped with winter wheat, year after year, without showing any signs of depletion. The soil of the Irrigation Block is amongst the richest in America, and retains all the valuable constituents that nature has stored up during past centuries.

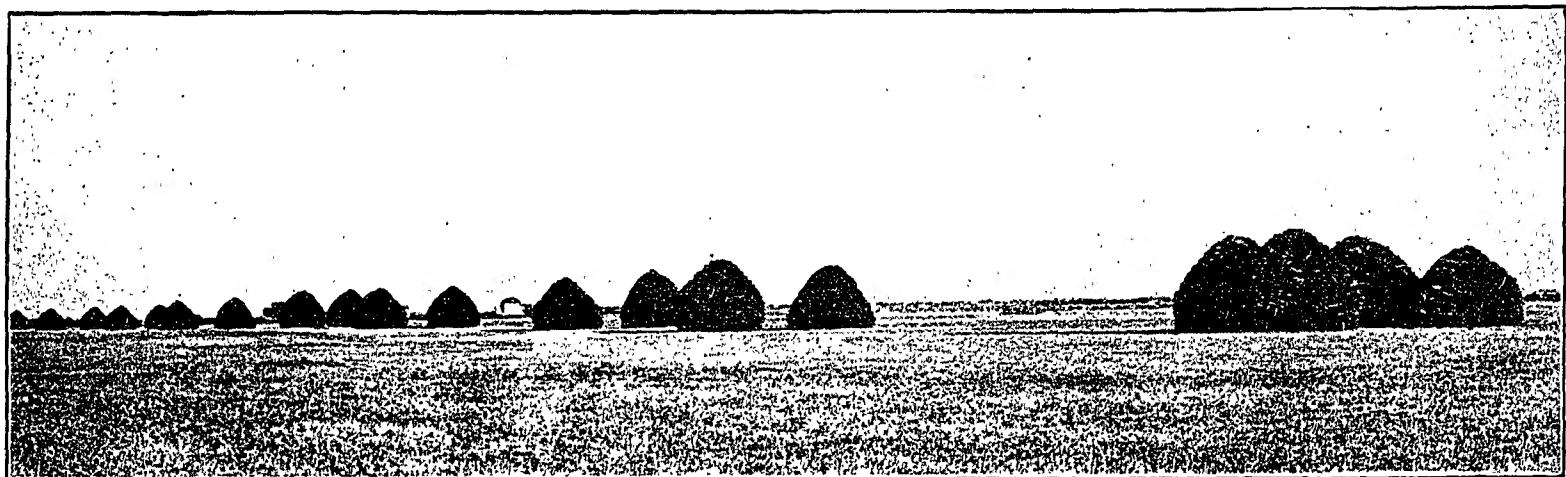
It only awaits the plow to yield up its treasures. The opinion expressed by Professor Shaw that "there is greater wealth in the upper twelve inches of soil in Alberta than in all the gold mines in America," is nearer the truth than is generally supposed.

The marvellous growth of wild grass (tall bunch grass) with which these hills and plains are carpeted, furnishes indisputable evidence of the soil's fertility.

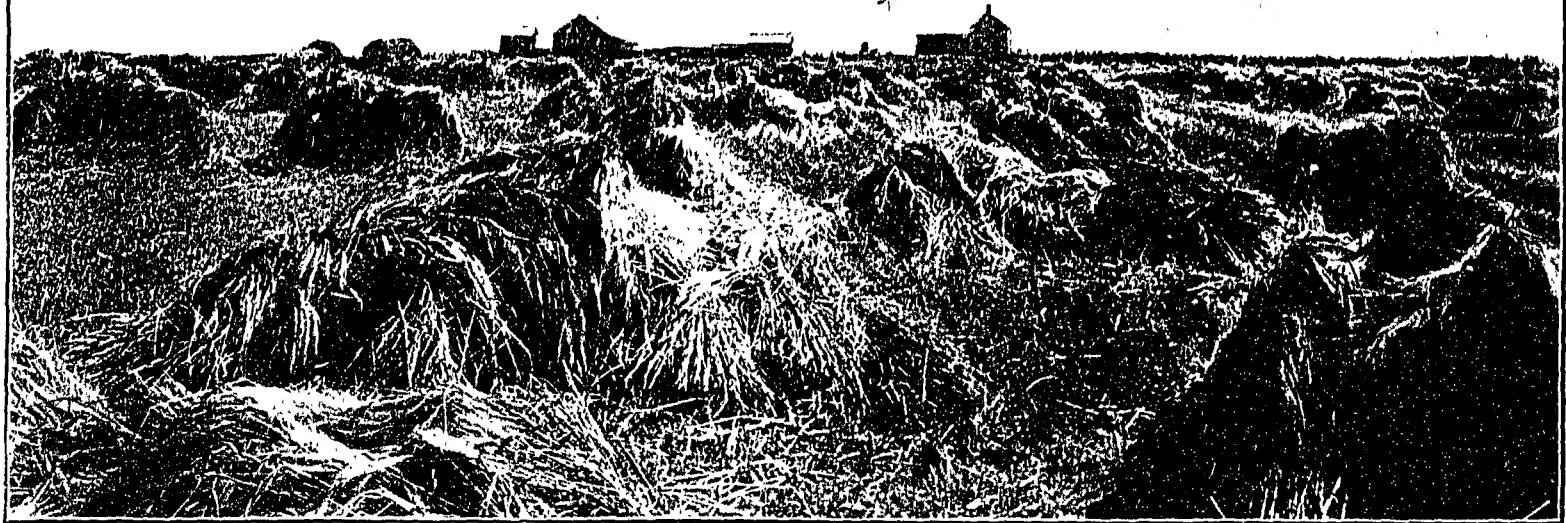
The subjoined extracts from a report by Prof. F. T. Shutt, M.A., F.J.C., F.C.S., F.R.S.C., taken at various points along the Canadian Pacific Railway Company's Bow River holdings, is one of which the Canadian Pacific Railway officials are justly proud.

" Ottawa, Ont., Nov. 16, 1906.
" Notes on the character of the soil between Langdon and Gleichen, Alta., on the lands of the Canadian Pacific Railway Company.

" The first examination was made a few hundred yards north of the railway station at Langdon. The surface soil was found to be a black, heavy loam, evidently well supplied with humus (semi-decomposed vegetable matter), and containing such a proportion of clay as to constitute it a 'strong soil.' Technically, it would be classified as a clay loam.
* * * The subsoil is a heavy chocolate colored clay. The probabilities are that analysis would show considerable percentages of organic matter and nitrogen in this clay—at any rate, for some few inches—as the surface soil, characterized by such rich stores of these constituents, passes without any strong line of demarkation into the subsoil.



The Kingdom of Alberta Red.



Barley under the "Crop Insurance Plan."

"Crossing the railway track, we drove to the Company's Farm (Sec. XV.), and inspected the soil at a number of points upon it and as far south as the Secondary Irrigation Canal 'A.' The surface soil, apparently similar in all respects to that north of the railway track. * * * Following east from Langdon along the Blackfoot trail the soil was examined in four places between Langdon and the canal, between Sections 6 and 7, Tp. 23, Rg. 25. The soil throughout was extremely uniform in character. * * * After crossing the ditch an examination was made in N.E. Quarter Section 6, Tp. 23, Rg. 25, where the same heavy black loam prevailed.

* * * Driving north-east towards Strathmore an examination was made on Sec. 29, Tp. 23, Rg. 25, and no change of mark could be noticed either in soil or subsoil.

"One examination was made east of Gleichen, on a breaking about half a mile from the village. Here there was a depth of fully eight inches of heavy black soil underlaid by a chocolate colored clay.

"Bearing in mind the lighter character of the soil in the neighborhood of Strathmore, it will be observed that the surface soil along the whole route travelled presented a certain well marked uniformity, more particularly noticeable in humus-content (as judged by the color) and depth. This con-

stitutes a distinguishing feature of prairie lands. A more detailed and extended survey might show a greater variation than was noticed, and possibly analysis might disclose differences not otherwise detectable, but as far as our examination allows a judgment, it would appear that the whole area traversed is overlaid by a surface soil rich in humus and plant food and bearing all the signs of a highly productive soil if provided with adequate moisture."

(Signed),

FRANK T. SHUTT,
Chemist.

Dominion Experimental Farms.

The following extracts from a report by Prof. Shaw, Editor of the "Orange Judd Farmer," considered one of the foremost agricultural experts of America, will be of interest:—

"The first foot of soil in Western Canada is its greatest natural heritage. It is worth all the mines in the mountains from Alaska to Mexico, and more than all the forests from the United States boundary to the Arctic Sea, vast as these are.

"And next in value to its heritage is the three feet of soil which lies underneath the first. The sub-soil is only secondary in value to the soil, for without a good sub-soil the value

of a good surface soil is neutralized in proportion as the sub-soil is inferior. The worth of a soil and sub-soil cannot be measured in acres. The measure of its value is the amount of nitrogen, phosphoric acid and potash which it contains; in other words, its producing power. Viewed from this stand-point, these lands are a heritage of untold value. One acre of average soil in the Northwest is worth more than twenty acres of average soil along the Atlantic seaboard. The man who tills the former can grow twenty successive crops without much diminution in the yields, whereas the person who tills the latter must pay the vendor of fertilizers half as much for materials to fertilize an acre as would buy the same in the Canadian Northwest, in order to grow a single remunerative crop."

Climate

Climate is a matter of vast importance to every person looking for a new home. Some will brave the rigorous winter of the Klondike or the parching desert of the "Death Valley" in the hope of quickly amassing sufficient wealth there to leave these inhospitable conditions behind and to settle down to enjoy life amidst more congenial surroundings. These, however, are not homeseekers.

Climate is very much a "matter of opinion," and it is a blessing that opinions differ. Otherwise the whole population of the earth would attempt to crowd into a few favored spots, and those who could not find room to dwell within the scope of the "ideal" climate, would have to be content with unhappiness elsewhere. Contrast is the spice of life. Human beings, and crops as well, for their own best good, must have a variable climate, an agreeable interchange of sunshine and cloudy weather, warm and cool weather. Such a climate has Southern Alberta, which is located further south than London, The Hague, Amsterdam, Cologne, Berlin and Dresden.

The colonization campaign of Western Canada has been fought largely on a basis of climate. Such was likewise the early history of the New England States when, in centuries gone by, the large British and Dutch trading corporations opened up these states for colonization and encountered all sorts of absurd superstition and prejudice in regard to the nature of the climate. History repeated itself further west, as it does in all new countries, and Southern Alberta is no exception to the rule. The most grotesque ideas are often entertained by people who do not know the country, and these erroneous impressions must be removed.

Some seven or eight years ago, Calgary had a population of perhaps three or four thousand souls. Three banks were



Oats in the Irrigation Block.

doing all the business of Southern Alberta and a goodly portion of Northern Alberta. Since that time forty new banks have been opened up in this territory, and Calgary has grown into a city of some twenty-six thousand inhabitants, and the population is increasing daily by leaps and bounds. Hundreds of elegant and valuable residences, worthy of the rich cities of the east, have been erected, scores of flourishing industries are firmly established, giving employment to thousands of people; and enormous volume of civic improvements, aggregating millions of expenditure, have been completed, and Calgary now ranks as the foremost educational, commercial and financial centre between Winnipeg and the Pacific Coast. Retired army officers and others, who have lived in every clime under the sun, have been attracted to Southern Alberta, and have settled there permanently in comfortable homes.

The reader may ask: "What has all this to do with climate?" We answer: "Is it reasonable to suppose that the climate of Southern Alberta is, on the whole, otherwise than agreeable, healthy and congenial to the average person, in view of the facts above stated?" In other words: "Is it likely that thousands upon thousands of rational human beings will create homes and found cities in a country where the climate is such that it constitutes a serious drawback?"

Southern Alberta is not a gold-laden Klondike. It is an agricultural country where fortunes are not made over night. Those living in such a country must make homes before they can make money.

A little reflection will convince anyone that the general question as to the merits or demerits of the climate is answered above.

Temperature.

The following temperature statistics will furnish some idea of Southern Alberta's winter weather, as compared with points in the States. The readings in this table are from December 20th, 1907, to January 19th, 1908, both dates inclusive.

	Maximum.	Minimum.	Mean.
St. Paul, Minn.	32.09	12.12	22.11
Madison, Wis.	34.06	18.06	26.06
Davenport, Ia.	37.23	22.09	29.66
Chicago, Ill.	38.70	26.10	32.40
Lander, Wyo.	34.14	5.28	20.70
Calgary, Alta.	36.25	13.24	24.74

In making a comparison between Calgary and the other cities given, it must be borne in mind that Calgary is over



Oat Crop, 1908.

3,400 feet above the sea, and naturally has cooler nights than the cities of the States given here, as they are of a much lower altitude.

A comparison of the maximum temperature for Chicago and Calgary during the month of January, 1908, gives Calgary an average of 37.16 and Chicago 34.11.

From the foregoing it will be seen that Calgary makes a fair showing against the other cities used in comparison. However, the comparison does not show that there have been less than fifteen cloudy days in Calgary from the first day of October, 1907, up to the 15th of February, 1908.

During the long days of the summer months, when the crops most need the sunlight to bring them to fruition, the sun is up early and works until 9 o'clock in the evening. The effect of these long hours of sunshine is readily discernible in the rapidity with which crops mature.

The winter in Southern Alberta is a season of bright, cloudless days, infrequent and scanty snowfalls, broken by frequent and prolonged periods of warm weather, heralded by the "Chinook" wind, so called because it blows over the region formerly inhabited by the Chinook Indians, on the banks of the Lower Columbia river. It is really a wind warmed by the Japan Current, which hugs the Pacific Coast,

and, rising to a high altitude, passes high over the snow-capped tops of the sleeping giants to the west of us, and descends upon the plains of Alberta, thus giving to it a much higher temperature during the winter months than that enjoyed in the northern or the eastern sections of the United States. The fact that winter wheat never kills out during the winter, speaks volumes for that season.

Owing to these winds the snow that falls usually lasts but a day or two, and is generally followed by warm, bright days and dry hard roads. In fact, there is so little snow in Southern Alberta that sleighing is quite a precarious pastime, which more often than otherwise terminates in a ride over the bare ground.

The Summer Frost—A False Alarm.

In the earliest period of colonization, Alberta was once or twice visited by summer frosts that injured grain to a certain extent. This has been the experience in every one of the Western States also. We never hear of injurious frosts now. If the truth were told, the crops injured were probably put in too late and did not mature early enough to escape the occasional frosts of early autumn.

April and May are the seeding months, June, July and August the growing months, and the latter the harvesting month. Below is appended an eleven year record of the lowest temperature prevailing from May to August.

Compiled by the Dominion Government Weather Observatory Station at Calgary.

Lowest Temperature.

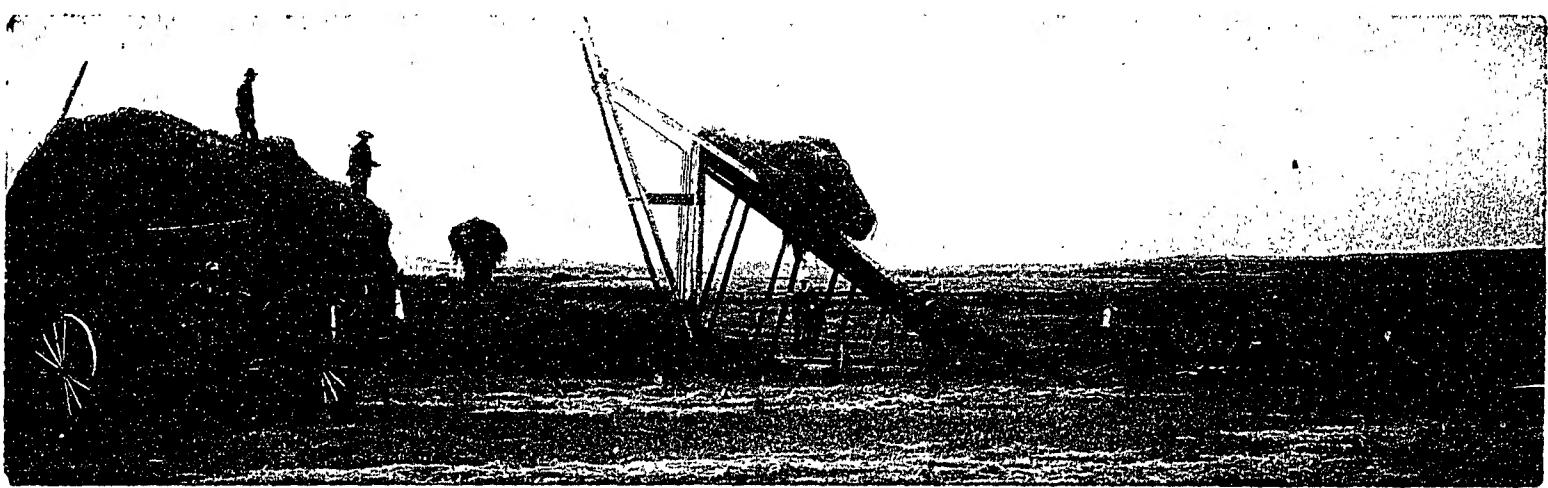
Year.	May.	June.	July.	Aug.
1896	22.0	33.5	34.0	36.5
1897	28.5	29.8	39.0	34.5
1898	22.0	35.0	38.0	35.5
1899	12.0	34.0	35.0	30.0
1900	28.0	30.0	36.0	30.0
1901	29.0	32.0	37.0	35.0
1902	25.0	29.0	38.0	31.0
1903	23.0	34.0	38.0	36.0
1904	23.0	26.0	34.6	32.0
1905	24.0	32.0	40.0	33.0
1906	18.0	36.0	40.0	34.0

Of course the months shown above are the only ones where the occurrence of a temperature several degrees below freezing point would injure vegetation. The frosts that are recorded in May are entirely during the early part of that month, when no tender vegetation was visible.

Rainfall.

The following meteorological statistics, compiled by the Dominion Government cover a period of twelve years.

Year.	Inches.	Year.	Inches.
1896	16.05	1902	35.71
1897	20.58	1903	21.98
1898	16.79	1904	11.16
1899	23.01	1905	16.51
1900	15.41	1906	16.14
1901	21.31	1907	16.45



Stacking Hay.



Grass-finished Beeves in the Irrigation Block.

Healthfulness.

The open character of the country in that portion of the Province of Alberta, its clear, dry atmosphere, the abundance of sunshiny days, its elevation, from 1400 to 3400 feet above the sea level, and the fresh breezes that blow across its plains, all tend to make it one of the most healthful countries in the world. There is an entire absence of malaria, and there are no diseases peculiar to the country. The part of the province referred to has a continental reputation for healthfulness, and it is peculiarly favorable to persons with a tendency to pulmonary troubles. Many who have lost hope of ever again being blessed with good health, have found it in Southern Alberta.

The Land of Mid-Winter Baseball.

The old resident of Calgary listens with a feeling akin to contempt to the timid questions asked by the new-comer in regard to the winter conditions in the Calgary district. It is hard to convince the Calgarian that there is any winter climate as delightful as his own, and he is to a certain extent justified in his belief that the winter season of Southern Alberta is about as near perfection as any.

A game of baseball was played by the American and Canadian fat men on New Year's Day, 1908. Besides baseball there were two games of football played on the same day, and many of the players wore neither coats nor vests. While the States were visited with blizzards last winter that extended as far south as Dallas, Texas, Southern Alberta had

a winter of almost continuous sunshine, with no snow or cold weather.

As a further evidence of the mildness of the average Southern Alberta winter day, we publish the following article from the "Albertan" of Calgary, outlining the programme of attractions in that city for New Year's Day. This will doubtless open the eyes of many of those who erroneously associate the winter conditions of other portions of Canada and Dakota and Minnesota with the winter conditions prevailing in Southern Alberta.

What Can Be Done on New Year's Day.

(From "Calgary Albertan," December 31st, 1907.)

"New Year's Day will be generally observed as a holiday, and business will be, for the most part, entirely suspended. There will be a great many family and other re-unions to wind up the holiday season and to start off the business and work of the year 1908 with good wishes for prosperity and happiness for the year.

In the field of sport there will be no lack of entertainment during the day. At 10.30 a.m. there will be a football match at Brewery Flats; at 2 p.m. there will be a baseball match at Victoria Park, and at the same hour the Terway footrace against time for five miles will take place, and also a football match on the Western Canada College grounds.

"The churches of the city will also provide a number of entertainments. At Knox Church there will be a mass meet-

ing for the children of the Presbyterian Sunday Schools of the city. At Wesley Methodist Church, there will be a reception and entertainment commencing at 3 p.m. At the First Baptist Church there will be a Sunday School entertainment at 8 p.m. At 8 p.m. the Ladies' Auxiliary of the Central Methodist Church will hold a reception in the Y.M.C. rooms for all members of the club and any strangers in the city."

Wheat is King

In North America there are three, just three, great life-sustaining crops, and these crops are wheat, corn and grass. Permanently banish any one of these great crops from the continent and it would shake its foundations loose. To permanently banish all three of these crops would mean to depopulate the continent and render it as valueless to man as is the desert of Sahara.

Three great man and beast-sustaining crops—and the greatest of these is wheat. Wheat is as much greater than grass as man is superior to the beasts of the field or of the forest. It is said in Holy Writ that man shall not live by



The Golden Hoof.

bread alone—but the ancient writer did not say that man cannot live by bread alone—for not on this round globe ours is there grown another substance that furnishes to man so complete and so well balanced a ration as does Wheat. Wheat builds up and nourishes the human body, and it feeds the brain as no other vegetable or animal substance grown upon the earth is able to do.

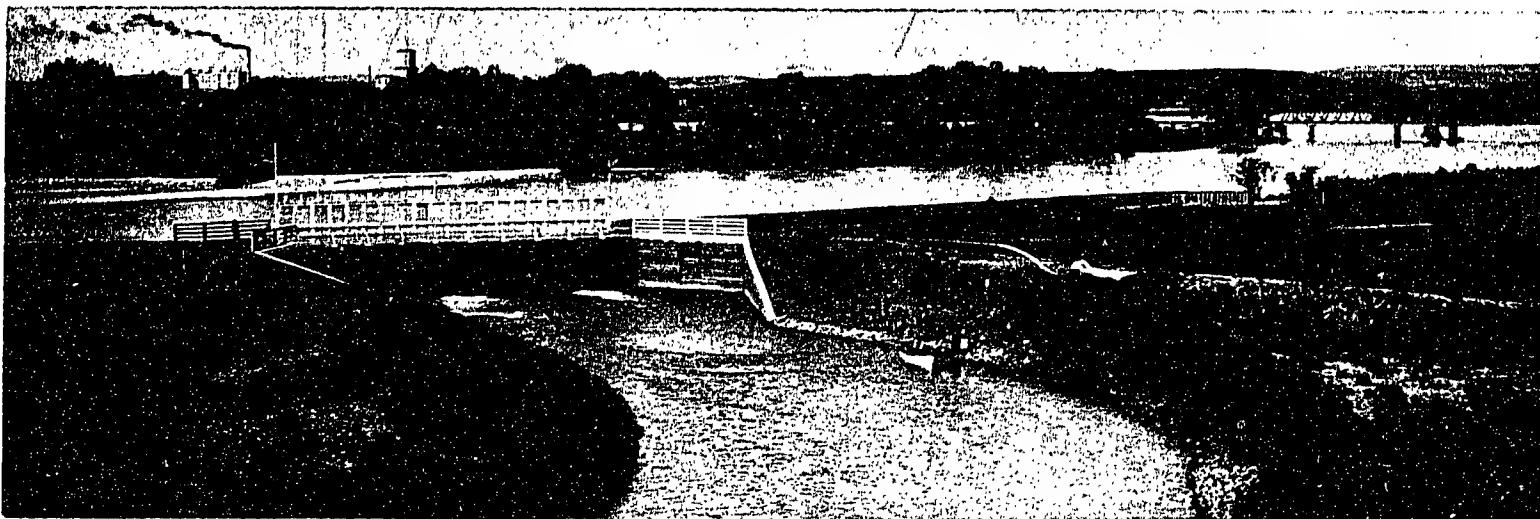
Wheat is King. Wheat was, it is, and it will be King, as long as man is man. And the wheat producing regions of the earth are and ever must be the granary of man. Blessed above all other places of the earth are those sections that grow high quality of wheat.

The Bow Valley Winter Wheat Lands.

The winter wheat lands belonging to this Company are the non-irrigable agricultural lands of the Three Million Acre "Irrigation Block." They are simply lands situated at a somewhat higher elevation than the Company's water distributing system. Any agricultural lands that cannot be reached by irrigation are classed as "winter wheat" lands. In some cases these lands are surrounded on all sides by irrigated lands, that will be disposed of for mixed farming purposes and generally in small areas. It is scarcely necessary to point out what this means. The two things that give value to land are, first, the ability of the land to produce, and, secondly, settlement. There can be no question as to the producing abilities of our winter wheat lands, and in view of their proximity to the Company's irrigated holdings, they are located in what ultimately will be one of the densest agricultural settlements in America. We are, therefore, in a position to offer investors and farmers an opportunity to purchase land at a nominal figure that will, within a few years, rank among the most valuable agricultural areas in America. Not alone will they pay for themselves very rapidly in the crops they produce, but by virtue of their peculiarly favorable location they command a speculative value entirely apart from their agricultural worth.

Climatic Influence on Wheat.

Climate is generally divided into three classes. Humid conditions exist where the rainfall is over 18 inches per annum; arid conditions where the rainfall is less than 10 inches per annum; and where the precipitation lies between these two



Head-gates of Main Canal on Bow River.

divisions, the climate is said to be sub-humid or semi-arid. The climate of Southern Alberta falls within the latter category, as does the greater part of the United States lying between the Mississippi River and the Pacific slope, and practically the whole of Western Canada lying east of the Rocky Mountains. It has been conclusively proven that semi-arid conditions are most favorable for the production of high class wheat. The humidity of the air is a feature of climate often overlooked, but, nevertheless, it has an important influence upon plant growth. Its effects upon the wheat plant are generally unfavorable if long continued, and particularly if it occurs during the time of ripening. Great humidity retards maturity, indirectly softens the grain, and through the over-production of starch, gives it a white color, and presents conditions favorable for the attacks of various fungus pests. It is not so much the great precipitation that gives the inferior quality to the grain in humid areas, as the prevailing humidity of the air and the lack of sunshine. It, therefore, follows that with proper soil conditions, the climatic features of the sub-humid districts are actually necessary for the successful production of wheat.

Southern Alberta lays claim to possessing the finest winter wheat lands in America, on the following grounds: (1) Low annual rainfall that prevails, only sufficient moisture falling to successfully mature the grain. (2) The very large proportion of this rainfall which occurs during the growing season. (3) The character of the precipitation, which occurs in the form of thunder-storms without fog or mist. (4) The

prevailing clearness and dryness of the atmosphere and the preponderance of sunny and warm days.

The Discovery of Southern Alberta.

It is no exaggeration to state that Southern Alberta was discovered by winter wheat growers from the Pacific States, who quickly saw the enormous possibilities ahead of this industry in Southern Alberta. Every effort was made by the Southern Alberta "cow puncher" to discourage these men from settling there. Yarns were related of drouths and all the agricultural plagues in the calendar. It naturally did not suit the rancher to have the prairie lands plowed and fenced. Many of the winter wheat men from south of the line, however, had been through the same experience where they came from, and took these calamity stories with a "grain of salt," and decided to settle in Southern Alberta, in many cases buying ranching holdings at high prices.

Bow Valley Winter Wheat Production.

As to the quality of wheat grown in Alberta let William D. Jackson, a former president of the Chicago Board of Trade, speak:—

"The samples of red and white winter wheat from Alberta have been submitted to our large millers, to Chief Grain Inspector Smiley, to the expert buyers of our elevators, and unofficially to the grain committee of our board. It was the judgment of all that the wheat was exceptionally fine, and

would grade number one in this market, which, commercially, is an almost unknown quality. Many here were aware that experiments in growing winter varieties of wheat had been made in the great Canadian North-West, but few were aware of the results. The samples excited a good deal of interest, and several parties expressed a desire to own land producing such a quality of grain."

In looking for seed wheat suitable to the climate of Southern Alberta "Kansas Turkey Red" was selected as the wheat best fitted for this country. A carload of it was imported, it was sown and a new variety of wheat was brought forth. The wheat grown here, under different climatic conditions, developed into a No. 1 hard, and has been given the name of "Alberta Red." That it is a superior quality of wheat is attested by the fact that wheat grown in Southern Alberta from this seed, in competition with winter wheat from all parts of the United States, received the highest award, the gold and the bronze medals at the Portland Exposition held in 1905.

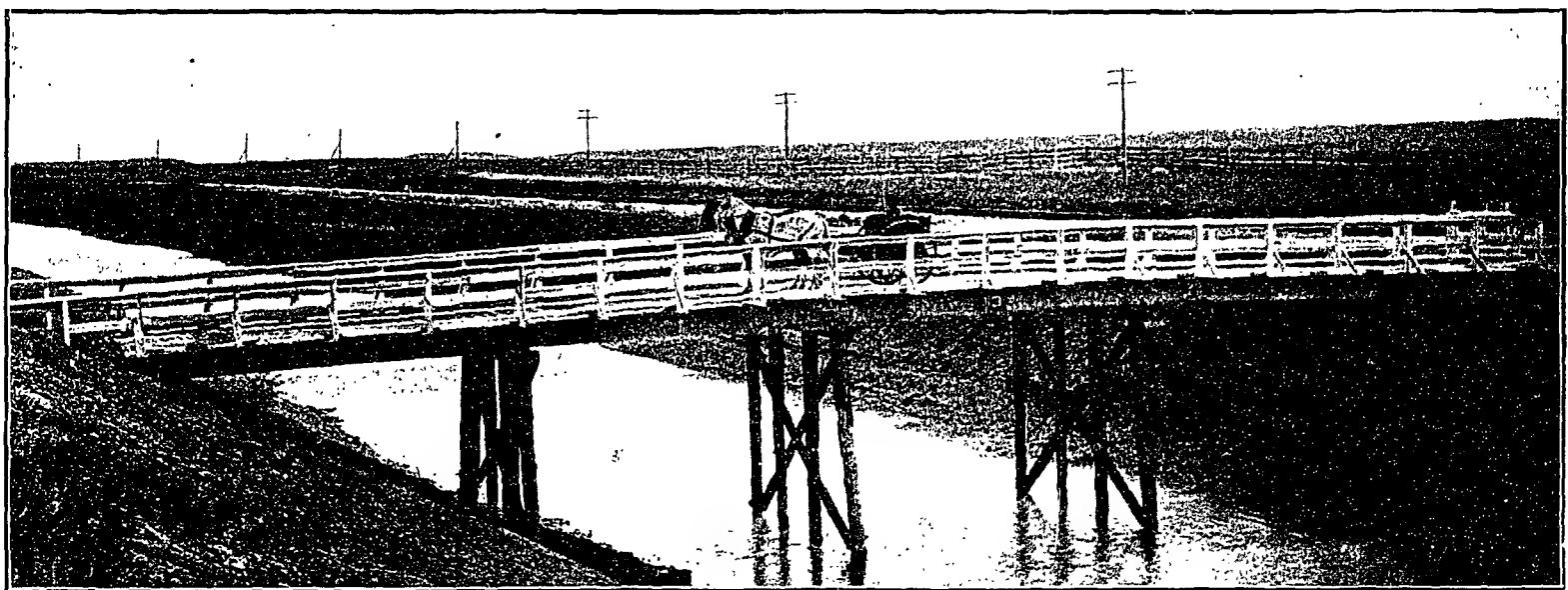
Winter Wheat is now the leading crop of Southern Alberta's unirrigated lands. The expansion of winter wheat production in Southern Alberta constitutes one of the most far reaching Canadian agricultural developments of recent years. Never in the history of Canada has any single crop in any part of the country come to the front with such giant strides as has winter wheat in Southern Alberta. In 1901 the

area seeded to winter wheat was less than 500 acres. In 1902 it was very little over 1,000 acres; 1903, 3,500 acres; 1904, 8,000 acres; 1905, 32,000 acres; 1906, 61,500 acres; in 1907, 84,000 acres; and in 1908, 104,500 acres.

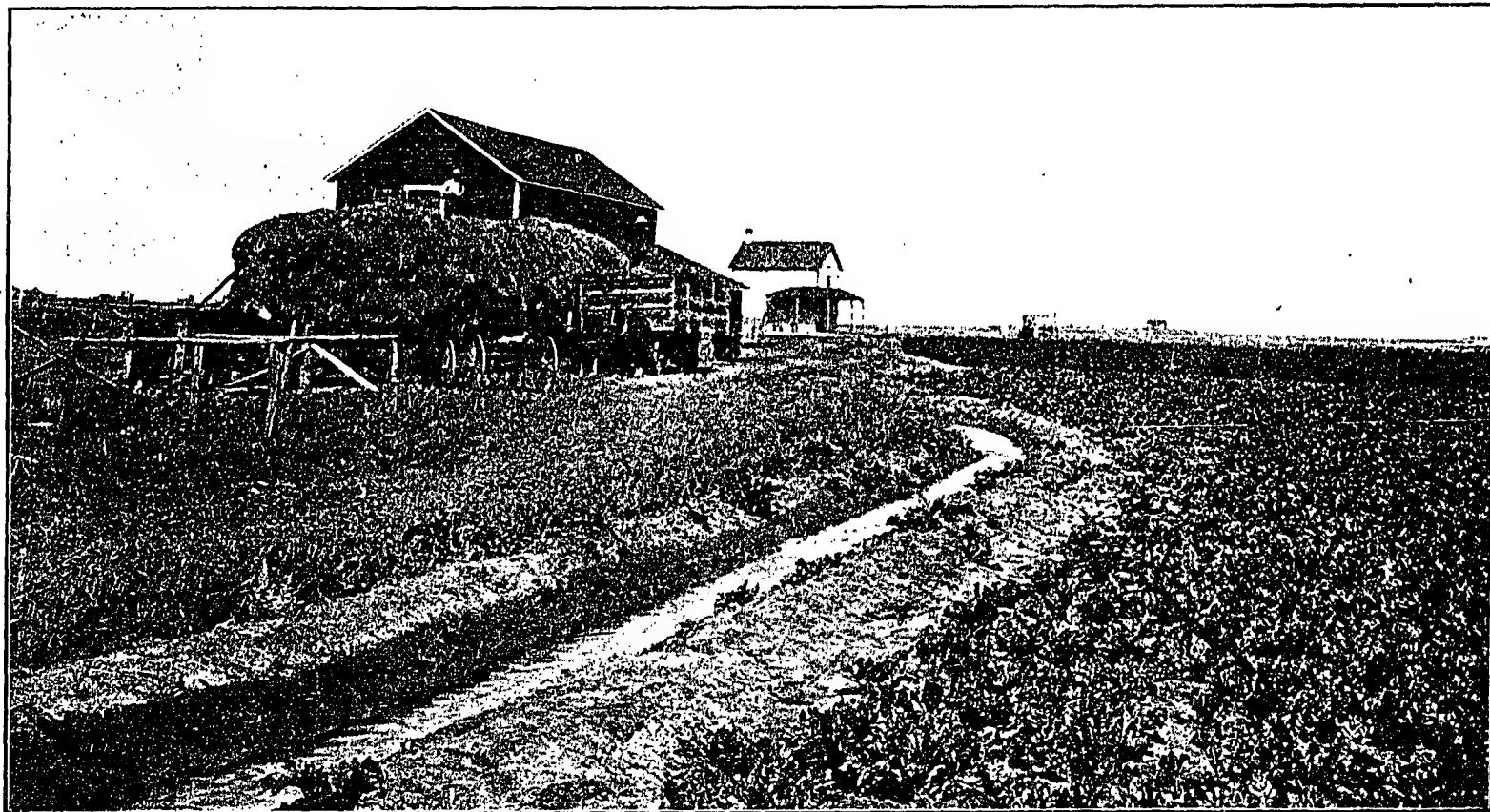
The district around Calgary is fairly representative of the whole of the winter wheat area of Southern Alberta. We find there that the average yield of winter wheat since 1902 has been: 1902, 24 bushels per acre; 1903, 23½ bushels per acre; 1904, 28½ bushels per acre; 1905, 32¼ bushels per acre; 1906, 26 bushels per acre; and 1907, 21½ bushels per acre. The average yield per acre for the whole of the United States for the same years are as follows: 1902, 14½ bushels per acre; 1903, 13 bushels per acre; 1904, 12½ bushels per acre; 1905, 14½ bushels per acre; 1906, 15½ bushels per acre; and 1907, 14 bushels per acre.

Average yields never do a country justice, because the short crop of the poor, shiftless farmer cuts down the average yield of his more wide-awake and prosperous neighbor. And average yields are particularly unfair to Alberta, where not alone is the average greatly reduced by incompetent farmers (largely so through their ignorance of conditions and their calling), but because the country is new and much of the wheat is put in on first breaking and poorly prepared ground.

In the spring of 1905 Southern Alberta had an elevator capacity of 230,000 bushels, and a milling capacity of 450



Traffic Bridge over an Irrigation Canal.



The Main Distributary of an Irrigated Farm in the Bow Valley.

barrels a day. At this time there is an elevator capacity of 3,000,000 bushels, and the milling capacity has been increased to 2,250 barrels a day. Six years have witnessed this phenomenal increase in crop production and in the facilities for handling it, and who is seer enough to forecast what the increase of the next five years will be? Certain it is that the raising of winter wheat has now passed the experimental stage, and that large areas throughout this part of the province that have heretofore been devoted solely to the grazing of cattle, horses and sheep, will in the near future, yield to the plow and be devoted to the growing of winter wheat.

SPECIAL NOTICE.—A very complete booklet has been compiled by the Company, dealing in a detailed manner with Winter Wheat Production in Southern Alberta. This publication covers 48 pages, and is entitled the "Staff of Life." It may be obtained by writing the Company at Calgary or by applying to the nearest general agency.

The Combination Farm

While the conditions are so favorable for the production of winter wheat in Southern Alberta, it must not for a moment be imagined that this is a one-crop country. Nor must it be supposed that it is a country of but one kind of land. The land on which winter wheat has made a record here is land that has never known artificial watering—irrigation. But there are other crops to which irrigation is as essential as is good soil and sunshine.

While it has been clearly demonstrated that the winter wheat lands here are of the richest soil to be found, and without the aid of irrigation are producing maximum crops, there is, taken in connection with the production of wheat on non-irrigable lands, a still more attractive and profitable opening for the new settler—the purchase of a combination farm.

It sometimes happens that progress in one industry retards

the success of others. But such is not the case when settlers buy combination farms in the Canadian Pacific Railway Company's irrigation block. This block of land contains about equal proportions of irrigable and non-irrigable areas and offers to the purchaser an opportunity to engage in mixed farming under almost ideal conditions. Here can be secured in the same quarter-section, side by side, land lying above the canal system for the production of winter wheat and the grazing of live stock, and irrigable land for other crops, such as alfalfa, barley, vegetables, etc., requiring abundant moisture. For farm purposes there is a never failing supply of water, which insures crops when the seed is placed in the ground, while the problem of a constant supply of water in every pasture for the use of the live stock is also solved.

The irrigated portions of the land will raise all kinds of grain and root crops and a sufficient supply of fodder for winter feeding.

The non-irrigated sections will grow winter wheat or fur-

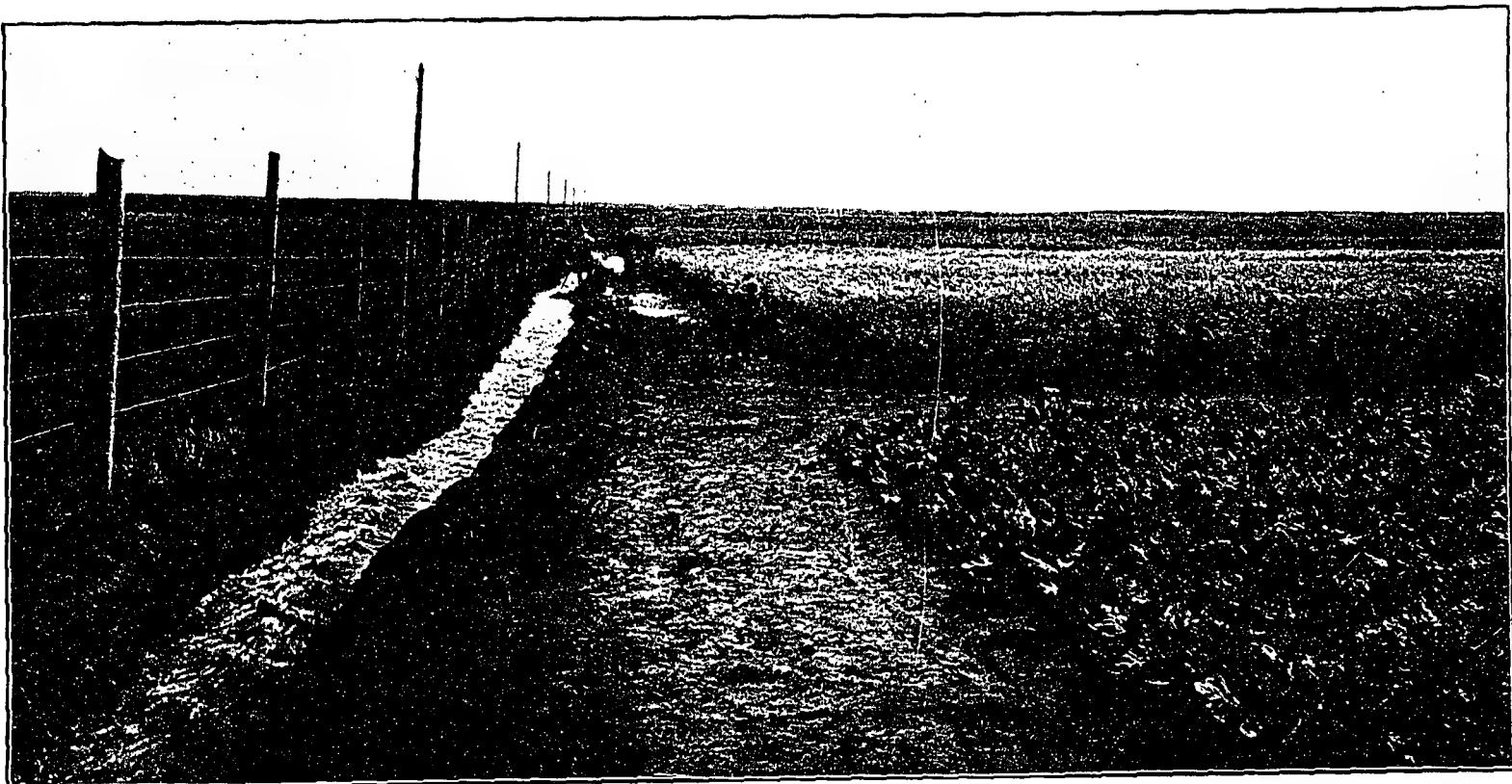
nish the finest pasture for live stock to be found in the world.

The native grasses on the plains of Alberta are rich in fattening properties. So much so, in fact, that Alberta beef, shipped direct from the ranges, has come to be considered as fine as the corn-fed beef of the States.

Combination farms in this block may perhaps be regarded as one of the best agricultural propositions on the North American continent.

Irrigation in Western Canada

The most striking method of impressing upon the mind of the reader the vast importance of the irrigation movement in Western Canada, is by the presentation of comparative statistics. Below will be found a table setting forth the irrigated acreage of each of the States of the Union, where this method of farming is practiced, and, also the acreage actually



Irrigating Barley at Strathmore.

under irrigation, or to be served by projects under construction in Alberta and Saskatchewan.

State.	Acreage.
Arizona	185,396
California	1,445,872
Colorado	1,611,271
Idaho	602,568
Montana	951,154
Nevada	504,168
New Mexico	203,893
Oregon	388,310
Utah	629,293
Washington	135,470
Wyoming	605,878
THE UNITED STATES.....	7,263,273
ALBERTA	2,998,321
SASKATCHEWAN	34,688
WESTERN CANADA (not including British Columbia)	3,033,009

A glance at the above figures demonstrates that the irrigated area of Alberta and Saskatchewan very nearly equals one half of the total irrigated area of the United States. The irrigated area of Southern Alberta alone is greater than twice that of the State of California, and over a million acres in excess of the irrigated area of the State of Colorado. Southern Alberta will, therefore, within a few years become the greatest irrigating district on the continent of America. This is something to know and ponder over.

The Canadian Pacific Railway Bow Valley Irrigation Project.

The Canadian Pacific Railway Company owns a large tract of these rich Bow River Valley lands. This tract has an average width of 40 miles from north to south and extends from Calgary eastward 150 miles. The land lies along the main line of their railway, and it is supplied with a first class passenger and freight service.

The water supply taken from the Bow River is inexhaustible, and will for all time furnish sufficient moisture for the 1,500,000 acres of land under the Company's canal system, and at the small annual water rental of 50c. a year. When the work now going forward on the central and eastern sections of this undertaking is completed 3,000 miles of canals and waterways will have been constructed by the Company. The work now completed has been passed upon by Dr. Elwood Mead, Chief of Drainage and Irrigation Investigations, De-

partment of Agriculture, Washington, who pronounces it superior to anything he has seen in his investigations on this continent.

The Railway Company has undertaken the construction of the largest irrigation system on the Western Hemisphere. About one-third of the system is now finished, and the land in this section has been placed upon the market, at a price and upon terms that are attracting settlement from all over the world.

This is neither a land or a water selling scheme. The low prices charged for both make that clear. The Canadian Pacific Railway is expending millions of dollars on this project purely and simply to build up the most prosperous agricultural community in America. This sounds like philanthropy, but it isn't. The railway wants a prosperous community that the greatest possible volume of traffic may be created. Therefore, we appeal to those only who will add to the prosperity of this section.

Irrigation and Prosperity.

Probably the greatest boon that irrigation has conferred on mankind is the practical demonstration of the profitableness of the small farm, acre for acre, as compared with the large farm. Southern Alberta contains as many striking proofs of this profitableness as may be found in the older districts. The day was when anything less than a section of land was looked upon as being too small, and from that up to several thousand acres was considered none too large for a farm. But that day has passed, and farms have gradually decreased in size until to-day, forty acres, well cultivated, will produce greater returns than 160 acres would under the old system. The increased prosperity that will certainly accrue to a country from the multiplication of small farms as compared with the holding of large tracts of land by individuals is apparent to all. Everything good that follows in the wake of increased population is an argument in favor of irrigation, and the cultivation of small areas.

Simplicity of Irrigation Farming.

Prof. Samuel Fortier, Office of Experiment Stations, United States Department of Agriculture, in a paper delivered before the National Irrigation Congress held at Sacramento, California, September 4th, 1907, in speaking of the difficulties to be encountered by new settlers on irrigated land in the United States, says: "This brings us face to face with the weak feature of every plan yet adopted by the American



Irrigated Apple Tree in the Bow Valley. Not an industry yet, but will be one.

nation for the reclamation of its arid lands. Before any harvests can be obtained on this new land it will cost on an average of over \$20 per acre."

The land here being free of cactus, sage brush or stone is immediately ready for the plow upon occupancy and the cost of putting in and harvesting a crop of any of the cereals will not amount to more than about \$6.00 an acre.

Irrigation farming is simplicity itself. The most successful community of irrigation farmers in Southern Alberta to-day,

is one composed wholly of settlers who never saw an irrigation farm before they came to the province. To irrigate land does not require any more skill than it does to plow or harvest a crop, and contrary to the general idea, irrigation farming is not only scientific farming, but business farming.

The sprinkling of a lawn, the watering of a plant, is irrigation in its simplest form. Without it the lawns and parks, which give to city life a touch of nature's beauties, would be devoid of all that makes them attractive.

The great irrigation development in Western North America has been the result of the efforts of people who migrated from the East and the middle West with no knowledge of irrigation.

The Aspect of Irrigation in Western Canada.

The following article taken from "The Farm and Ranch Review," the leading agricultural paper of Western Canada, will be of interest to prospective settlers, as the editor of that publication has farmed most successfully in Southern Alberta, both with and without irrigation:—

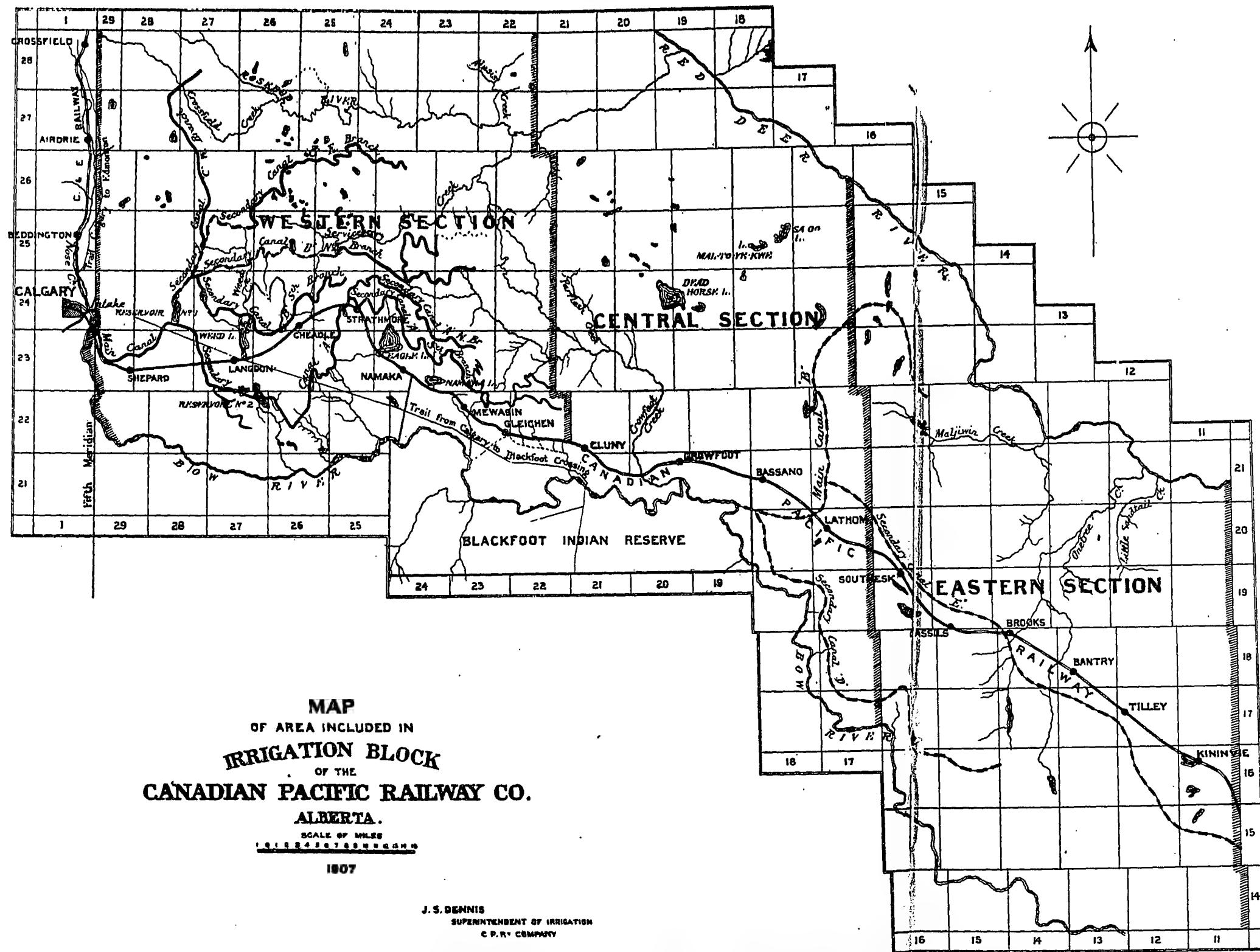
"A close study of the agricultural condition under which artificial watering is being practiced throughout the world to-day, reveals the fact that irrigation is by no means confined to countries where the rainfall is so scant that nothing will grow without it. On the contrary, in many countries where irrigation has been brought to the highest state of perfection, the natural rainfall is very heavy. Indeed, there must always be contiguous territory of considerable precipitation in order to produce springs and streams from which water may be diverted for irrigation purposes. The States of Iowa, Wisconsin, Illinois and Ohio, and the Provinces of Ontario and Quebec are generally supposed to be amply supplied with rain and snow, and able to produce excellent crops under ordinary culture without the artificial application of water. Yet, in all of India, except the northwestern part, throughout China, Japan, Siam, Italy, France and Mexico, where millions of acres are brought under irrigation, the rainfall is quite as heavy as in the states and provinces mentioned, namely, 23 to 51 inches per annum, which would generally be considered distinctly humid conditions.

"The average rainfall during the past ten years in the provinces of Alberta and Saskatchewan, where irrigation by gravity is practiced, is as follows: Calgary, 17.69 inches; Macleod, 13.18 inches; Medicine Hat, 15.83 inches; and Swift Current, 16.40 inches. The average rainfall of the state of Dakota is somewhat less. With the increase of population and prosperity, however, more scientific methods of farming were naturally adopted, and the introduction of irrigation marks an epoch in the history of Western Canada. Even in the most humid countries it is seldom that a season passes where the application of water at the critical time in the growth of a crop, would not add considerably to the value of the result. This refers with equal force to the years of greatest rainfall. As a matter of fact, farmers now are not satisfied with returns

more or less in accordance with the accident of rainfall, but are aiming at perfection in the development and maturity of their grain and hay crops. It is, therefore, obviously good business to utilize the means which have been placed at the disposal of settlers in districts favored with an adequate water supply, to supplement the efforts of nature. Having water available in his ditch or reservoir, the irrigation farmer is able to distribute it on his land at such seasons of the year and in such quantities as experience has taught him are the most propitious to favorable results. He is not at the mercy of the capriciousness of the weather, and contends that crop growing without irrigation is a crude system, while irrigation farming is the most ancient, highly developed and natural system of culture.

"It is an admitted fact that the man who derives his living from cultivating the soil takes chances on the ultimate result of his efforts, such as prevail in very few legitimate branches of commerce. Weather conditions make or break him. It is, therefore, natural that where the conditions are favorable he should insure against untoward events. The tendency of the age is toward insurance. We insure against fire, against accident, and against death. It is a maxim in modern business management that every contingency must, as far as possible, be insured against. And the forecasting of the average result of every enterprise man embarks on, and consequently the possibilities of insurance, are daily extending. The farmer all over the world is rapidly adopting the principle. We insure against the death of live stock, and the destruction of crops by hail storms. In Western Canada we go a step further and insure against the absence of the necessary rainfall to produce the greatest possible crop. Drouth is the bane of the agriculturist in every portion of the globe where the soil is tilled and where crops are grown. Countries with the highest average rainfall have at times suffered an almost total loss of crop from the absence of moisture at the time of the growing season, when it was especially needed. Consequently, artificial watering of crops or irrigation, as it is commonly called, has been resorted to on a more or less extensive scale in nearly all countries where the natural conditions admitted of it. . . .

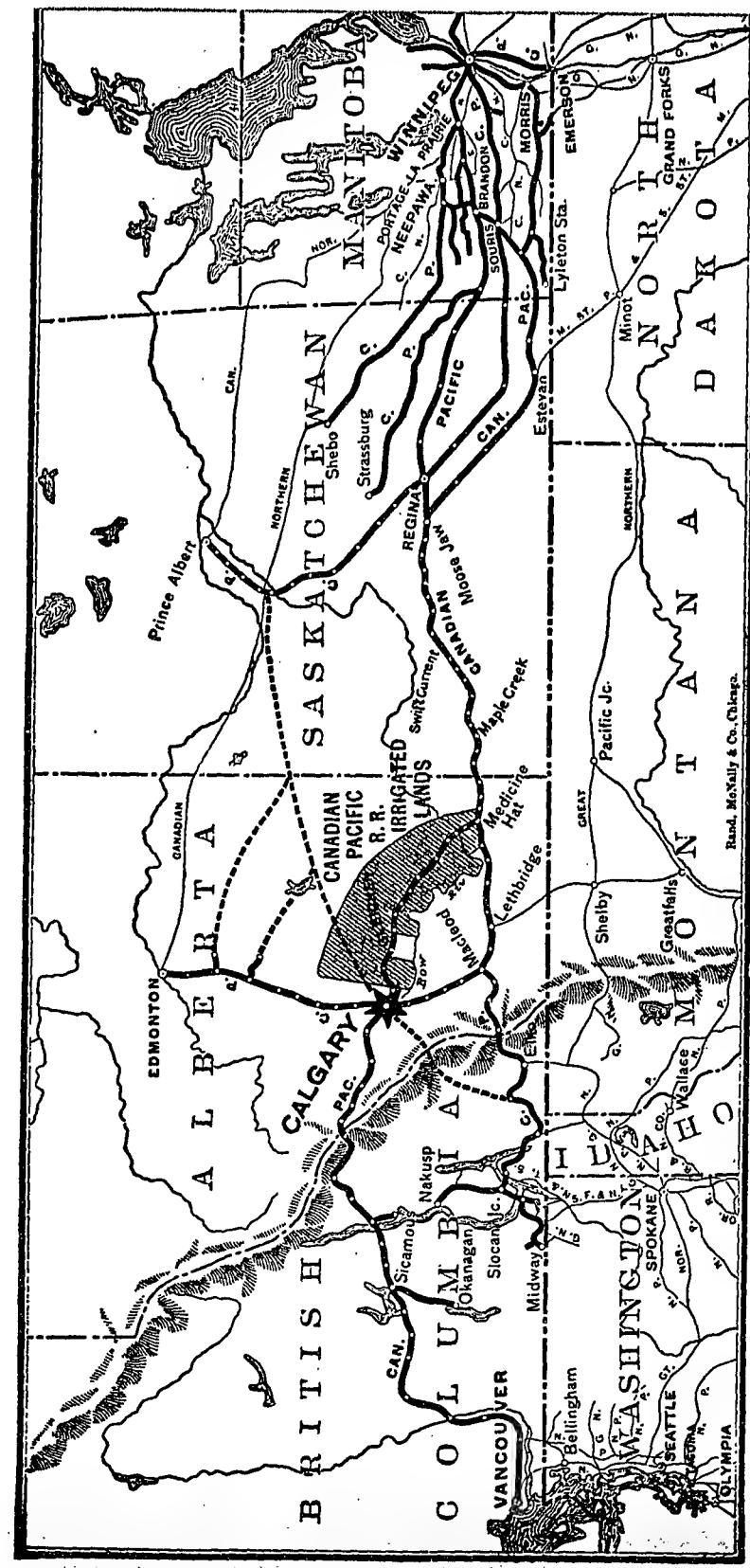
"To sum the matter up, therefore, irrigation in Western Canada is not essential to the production of crops, but promises to increase the returns from farming, that it is bound to become a leading factor in its agricultural development, particularly as the cost of irrigation, owing to favorable topographical and other conditions admitting of cheap construction, will be much smaller than anywhere else on the American continent."



MAP
OF AREA INCLUDED IN
IRRIGATION BLOCK
OF THE
CANADIAN PACIFIC RAILWAY CO.

SCALE OF MILES

J. S. DENNIS
SUPERINTENDENT OF IRRIGATION
C.P.R. COMPANY



The Mission of Irrigation in Northerly Latitudes.

Leaving out of the question the belts producing the tender fruits and vegetation of all kinds, and confining our attention to that portion of the continent of North America where the agricultural lands are devoted to the production of the hardier crops, the standard economic plants raised on the average farm there, may be classified as follows in their relation to irrigation.

(1) Plants that cannot be produced profitably without irrigation, namely, Alfalfa, Clovers, Sugar Beets, superior Malting Barley, tender vegetables and Strawberries as a market crop.

(2) Plants that can be irrigated to advantage every year, namely, Field Peas, Garden Stuff, Trees, Small Fruits, Rape, Timothy, and other forage crops requiring considerable moisture.

(3) Plants that will respond to irrigation during most years, namely, Oats, Six-rowed Barley, Soft Winter and Spring Wheats, and forage crops adapted to dry land conditions, such as Western Rye Grass, Bromus Inermis, and other semi-arid grasses.

(4) Plants that will give increased yields under irrigation during occasional seasons only, namely, Hard Winter and Spring Wheats, Flax and Rye.

The above classification of northern economic plants presents the irrigation question in a nutshell. No practical agriculturist can fail to recognize the fact, that the scope for irrigation in northerly latitudes, as indicated, is enormous, and that this system of farming will soon occupy a vitally important sphere in the agricultural operations of Southern Alberta.

In considering the possibilities of irrigation in northern latitudes, it is, however, well to bear in mind the fact that the state of Montana, where the conditions are almost identical with those of Southern Alberta, raises more agricultural products under irrigation than the states of Oregon, Washington and Wyoming combined; as much as the state of Utah, and half as much as the state of Colorado. Great irrigation development is now taking place in Northern Montana, by the aid of and under the direction of the United States Government, which will place that state in the front rank of the irrigated districts. In fact, unmistakable evidence is visible on all sides to the effect that the largest area of irrigable lands in America will presently be among the rich agricultural lands of northerly latitudes, and under sub-humid climatic conditions.

Animal Husbandry the Foundation.

By consulting the above plant classification, it will be evident to the observing farmer that the highest development of irrigation farming is not in any way associated with cereal production. The latter will probably be a feature of the irrigated farm in the earlier and cruder stages thereof and until the soil is sufficiently worked up to admit of more intensive effort. But the irrigated farm will not reach its highest degree of productiveness until it is devoted almost entirely to the growth of fodder crops of all sorts, chief amongst which will be alfalfa, and until these crops are consumed on the farm and the waste returned to the soil. In other words, the highest development of the irrigated farm in Southern Alberta will be, more or less, coincident with the expansion of the various branches of animal husbandry, which is the basis and foundation of farming under artificial watering. When this destiny has been realized, Southern Alberta will fill the same place in Western Canadian agricultural operations as the corn growing and dairying States of the middle West occupy in respect to the whole Union.

The popular impression of farming under irrigation is, that only the most valuable crops, such as fruits and garden produce, can be profitably grown under artificial watering. An examination of the agricultural statistics of the United States, however, reveals the fact that fruit growing and truck farming form a very small percentage of the areas under irrigation. Fully 80 per cent. of the whole irrigated area of the United States being devoted to producing crops for the feeding and the finishing of live stock, principally with alfalfa, but including also the coarse grains. The live stock industry being the foundation of all irrigation development in America, it is reasonably certain that live stock husbandry in connection with irrigation farming will predominate to even a greater extent in Alberta.

To further illustrate the minor importance of fruit growing under irrigation compared with fodder production, it may be mentioned that in the State of Colorado, out of a total irrigated area of 1,500,000 acres, only 35,000 acres are devoted to fruit growing, while considerably over a million acres are given to alfalfa and other fodder crops.

The Canadian Irrigation Law.

It is of great importance that the laws under which irrigation is practiced should be so framed as to avoid any litigation that might possibly arise over water rights. In many of the States of the Union where irrigation is in vogue more money

has been spent in litigation over water rights than upon actual irrigation development.

The Canadian irrigation laws and their administration are acknowledged by the leading irrigation experts of the continent to approach perfection as nearly as possible. The United States Department of Agriculture, in Bulletin 96 of that Department, recommends the Canadian law to the consideration of those whose duty it will be to prepare irrigation laws in the future for use in those States where irrigation is practiced or is likely to be practiced. Under these laws the waters of Alberta being recognized as the property of the Crown, the title given for a water right is equal to and as good as is the title given for land. During the ten years irrigation has been practiced in Alberta there has not been a single law suit involving water rights.

Crop Statistics

Comparative Statement of Yields of Grain from Government Returns.

State.		1902	1903	1904	1905	1906
Ohio.....	Wheat	17.1	13.7	11.5	17.1	20.14
	Oats	41.1	30.6	40.9	35.8	32.8
	Barley	15.83	11.65	14.30	11.79	13.80
Minnesota.....	Wheat	13.9	13.1	12.8	13.3	10.9
	Oats	39.0	32.3	39.2	37.5	32.5
	Barley	10.58	9.36	9.09	8.64	9.80
Indiana	Wheat	16.0	10.0	9.2	18.3	20.7
	Oats	35.4	24.4	33.1	35.3	28.2
	Barley	12.88	11.40	14.02	12.60	15.29
Iowa.....	Wheat	12.7	12.4	11.6	14.2	15.7
	Oats	30.7	24.0	32.0	35.0	33.8
	Barley	9.47	8.42	10.01	7.80	9.90
North Dakota.....	Wheat	15.9	12.7	11.8	14.0	13.0
	Oats	38.4	27.4	37.4	38.9	32.5
	Barley	11.38	7.78	7.87	8.40	8.51
South Dakota	Wheat	12.2	13.8	9.6	13.7	13.4
	Oats	34.8	38.6	39.0	39.0	36.4
	Barley	11.10	10.36	8.96	8.70	9.28
Nebraska.....	Wheat	20.9	15.7	13.6	19.4	22.0
	Oats	34.6	29.5	30.7	31.0	29.5
	Barley	10.26	8.78	8.49	8.52	8.68
Kansas.....	Wheat	10.4	11.1	12.4	13.9	15.1
	Oats	33.5	26.2	17.8	27.1	23.6
	Barley	6.08	10.85	7.99	7.04	7.76

State.		1902	1903	1904	1905	1906
Idaho	Wheat	22.1	21.1	22.9	28.2	24.4
	Oats	42.1	41.5	39.3	39.4	40.7
	Barley	24.54	17.89	23.56	19.20	20.50
Washington.....	Wheat	22.2	20.3	22.2	24.6	20.8
	Oats	46.2	47.9	44.9	50.0	43.2
	Barley	20.1	18.95	17.05	18.80	17.89
Oregon	Wheat	20.0	18.2	19.0	18.6	20.0
	Oats	28.7	33.8	23.1	24.1	33.8
	Barley	16.59	19.59	16.93	16.12	18.20
The United States....	Wheat	14.5	12.9	12.5	14.5	15.5
	Oats	34.5	28.4	32.1	34.0	31.2
	Barley	13.28	12.05	11.40	10.80	11.74
The Calgary District..	Wheat	24.02	23.40	28.67	32.18	26.00
	Oats	39.27	37.41	39.79	43.41	44.56
	Barley	29.80	24.75	31.42	32.01	30.22

Canadian Crop Statistics.

Wheat:					
	Spring	Winter	Oats	Barley	
New Brunswick	10 yrs. to 1901—	14.1	14.8	25.8	21.6
Nova Scotia	"	—15.2	13.4	25.8	23.5
Ontario	"	—17.5	19.6	32.6	27.5
Prince Edward I. ...	"	—17.5	—	27.7	23.1
Quebec	"	—14.1	13.7	24.9	24.3
Manitoba	"	—19.3	17.0	18.5	19.1
Saskatchewan	"	—19.88	—	34.98	24.45
Alberta.....	1898 to 1905—	20.69	21.03	35.67	26.50
	1904—	19.80	18.33	32.58	26.12
	1905—	20.69	21.03	35.67	26.50
	1906—	22.75	23.34	40.82	29.04
CALGARY DISTRICT	1904—	23.22	—	39.79	31.42
	1905—	33.92	32.18	43.41	32.01
	1906—	27.8	26.0	49.0	31.0

In compiling the foregoing tables, the Calgary District is made up of the comparatively small area contained within a radius of fifty miles of the city of Calgary. And while in one or two instances the yield elsewhere has been slightly larger than in this district, the fact must be borne in mind that in each instance the larger yields have been mostly in highly irrigated sections. It is safe to assume that if irrigation had been largely available in the Calgary District during the years for which statistics are quoted, the yields per acre would very nearly have been doubled, at least, as far as oats and barley are concerned, and a very material increase would also have been apparent in winter wheat.



Exhibit of Irrigated Vegetables.

Statistics of average yield include good, bad and indifferent farming, and in new countries, such as Alberta, the farming methods are naturally much more careless than in older settled districts. Furthermore, crops on newly broken prairie predominate, and such seldom gives as good returns as from land that has been under cultivation for a few years and brought into good tilth. To properly appreciate the capabilities of Alberta, average statistics should, therefore, be taken with caution. The fairest way is to pass judgment upon the country on the basis of its possibilities. By way of conveying information on this subject, it may be mentioned that Mr. C. Nathe, in 1908, threshed 3,700 bushels of winter wheat from 60 acres of land, being at the rate of $64\frac{3}{4}$ bushels per

acre. A. E. Burnett, some 40 miles south of Calgary, threshed the same year 4,280 bushels of winter wheat from 71 acres of land, or at the rate of $60\frac{1}{4}$ bushels per acre. Crops of from 48 to 55 bushels per acre are common, and a winter wheat crop less than 35 bushels to the acre is not considered at all satisfactory.

Press Crop Bulletin No. 1 of 1907 has the following to say in regard to the statistical system of Alberta:—

“It should be borne in mind, when studying crop bulletins issued by this department, that the yields given are based upon thresher's measure, and not by weight, thus the average yield is much heavier than reported. For example, the standard weight of oats per bushel is 34 lbs., but those grown

in Alberta average from 40 to 48 lbs. per measured bushel; therefore, the yield of oats, if given by weight, would be at least one-fifth to two-fifths greater, bringing the average estimated yield for 1906 up to fully 50 bushels per acre."

Oats.

Oats give large yields and are of first quality. It is no uncommon thing for a farmer to harvest 90 and even 100 bushels of oats to the acre, and not a few instances are recorded in which the yield has been 115 bushels to the acre, weighing from 40 to 48 lbs. to the bushel. Oats are always in demand, and at prices ranging from 30 cents to 60 cents a bushel. British Columbia lumber and mining camps make large demands on Alberta farmers for oats.

The only oats raised in Western Canada last year that graded No. 1 White on the Winnipeg Grain Exchange were grown on the farm of John McEwen, in the heart of this company's irrigation block at Gleichen.

Barley.

Conditions for the raising of barley are almost perfect here, and the quality and yields are of an exceptional character. In fact, the grain is of such a superior quality that the farmers of this part of Southern Alberta have a standing offer from the grain buyers of 10 cents a bushel in excess of the prevailing market price. The greatest yield reported for 1907 was that of John McEwen, at Gleichen, who raised 91 bushels to the acre. This was an exceptionally heavy crop, but 50 to 60 bushels to the acre is no uncommon yield in this district.

The irrigated lands of the Gallatin Valley, Montana, have become famous for the quality of barley produced there, particularly for the high percentage of malt and the color and superior quality of the beer produced from this malt. For this reason the barley grown there finds a ready market in European countries, and is contracted for in advance of its harvest. The barley grown here is fully equal to that raised in the Gallatin Valley and commands an equally high price. While in the past it has been grown with great profit the production has been limited. As irrigated land furnishes ideal conditions for its growth and an absolute assurance not only of a high grade yield but of a uniform and thorough maturity of the germinating qualities of the grain, combined with light color, which is an essential qualification, there is no doubt but it will be one of the staple crops on this company's irrigated lands.

Flax.

This part of the Province is to-day the banner flax growing section of Canada; the soil and climate are exactly suited to the production of the maximum amount of seed, and of the tallest, cleanest and brightest straw. With the successful solution of a new process of making linen from flax straw, this crop promises to be one of great profit, as under irrigation the yield of seed and the quantity and quality of the straw reach their highest development and perfection. The Government report for 1906 gives the average yield in Alberta as 14.34 bushels to the acre. Compare this average with that of North Dakota, the State that leads in American flax production, and you will be convinced that Alberta is all right for flax. The average in North Dakota for 1905 was 11.6 bushels to the acre. The average yield for the district of Calgary is 28.64 bushels an acre.

Field Peas.

The field pea grown in the Bow River Valley, owing to the climatic conditions and long hours of sunshine in Alberta, is a small, hard, round pea; not at all like the "cow," "clay" or "whippoorwill" pea, grown so extensively in the South.

These peas can be fed to sheep in the field from the vine all winter and also make an excellent feed for hogs. They make a sweeter and firmer pork than does corn. Western Canada is absolutely free from the ravages of the pea weevil, and will be called upon to supply the seed for the farmers of the East.

Alfalfa.

The modern popularity of alfalfa lies in the fact that it is perhaps one of the oldest known forage crops, and yet it may be justly regarded as the agricultural revelation of the latter part of the last century.

The most attractive feature of the alfalfa field is its lasting qualities. Near the city of Mexico fields are in existence that have been constantly cropped and never resown for upwards of three hundred years. Alfalfa has not yet reached the point in Alberta where it may be considered a leading crop. In fact, as this crop can be successfully produced only under irrigation, and as irrigation development on a large scale is of somewhat recent origin in Southern Alberta, it follows that our experience with alfalfa is limited. It has, however, been demonstrated beyond the slightest doubt, that alfalfa is a most successful crop in Alberta, and can be grown in abundance on the irrigated lands here.

The most instructive data in regard to alfalfa that is applicable to Southern Alberta, may be obtained by studying the

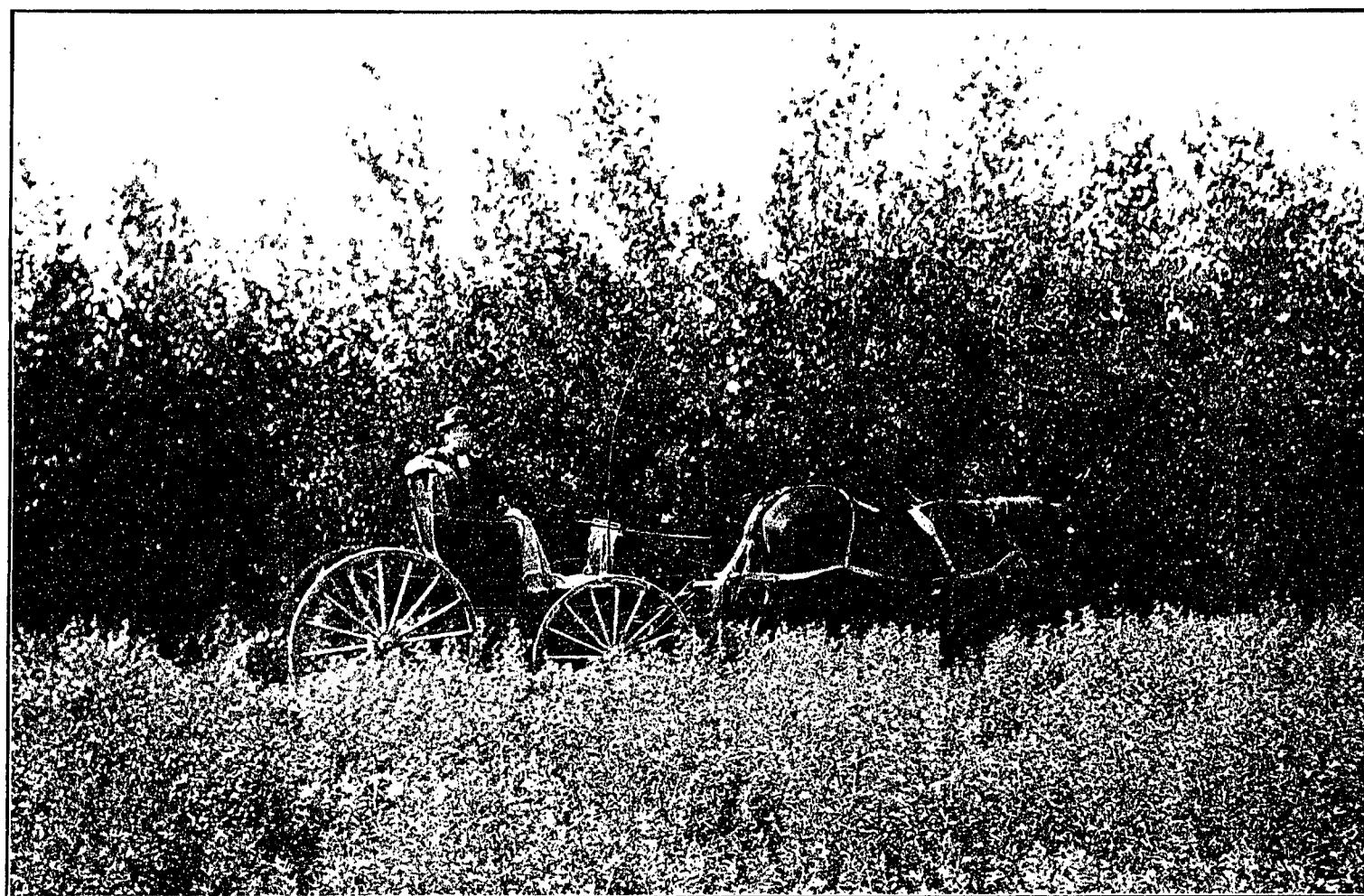
records of the State of Montana. The climatic and soil conditions of Southern Alberta are so much like those of Eastern and Central Montana, that it may almost be taken for granted that the life zone of any plant growing successfully in those parts of Montana, includes also the southern portion of the Province of Alberta.

Professor Emery, for many years director of the Agricultural College at Bozeman, is responsible for the statement that alfalfa fields in the Yellowstone district have been cropped for sixteen consecutive years, and that this plant has been tested in almost every irrigated county in the State of Montana, and as a rule succeeds remarkably well. In case of failure it has

usually been found that the cause was due to the water table being too close to the surface.

In the lower parts of Montana three crops are cut each season, and in the other parts of the State, two. The yield runs from two to seven tons per acre, depending on the condition of meadow, the stand, the water supply, etc. Four tons may be considered a fair estimate of the Montana yield per acre. The average price for cutting and stacking runs from seventy-five to ninety cents a ton.

The certainty of the irrigated lands of Southern Alberta producing alfalfa as a leading crop, opens up a vista of possibilities in many directions. During the early years of settle-



What Irrigation Does for the Home. Tree Belt, Three Years from Seeding. Alfalfa in the Foreground.

ment in this Province the claim was made that Alberta possessed all the natural conditions to make it one of the leading live stock countries of the world. When farmers invaded the ranchmen's domain later on, and numerous crops of winter wheat and other coarse grains were successfully harvested year after year, Alberta's fame as the foremost stock country faded, and the world henceforth knew it only as a great crop-producing district. The advent of irrigation and alfalfa will again bring the live stock industry to the front rank in Southern Alberta; history thus repeating itself.

Where irrigated lands command the highest value per acre, and where the climate admits of the tender fruits being grown, alfalfa is still one of the leading crops, and greatly outranks in importance fruit growing and truck farming. It is not at present claimed that Southern Alberta will grow the more tender varieties of fruit, but it has been demonstrated beyond doubt that the irrigated lands here can and do produce alfalfa, which is regarded as being the more valuable and profitable crop in those States where it is grown side by side with fruits. Hence it is reasonable to say that the rich, virgin alfalfa lands of the Canadian Pacific Railway irrigation block are fully equal in value, acre for acre, to the most high priced irrigated lands in the Western States.

Professor Fairfield on Alfalfa Growing in Southern Alberta.

Mr. W. H. Fairfield, the writer of the subjoined letter, was born in the alfalfa district of Colorado. Subsequent to his coming to Southern Alberta, eight years ago, he was in charge of the Wyoming Experimental Farm at Laramie, Wyoming, and is recognized as one of the foremost American authorities on alfalfa. When he came to Southern Alberta he bought an irrigated farm and as soon as possible put the greater part of it into alfalfa. His efforts as an irrigator have met with such success that he has recently been appointed superintendent of the Dominion Experimental Farm located in Southern Alberta.

Dominion of Canada, Department of Agriculture, Experimental Farm for Alberta.

Canadian Pacific Irrigation Colonization Co.,
Calgary, Alta.

Dear Sirs,—Replying to your recent letter asking for my "experience with alfalfa in Southern Alberta, and my opinion as to its future possibilities as a forage crop under our climatic and soil conditions."

In my judgment there is a great future for alfalfa growing here, our soil is rich and deep and we have plenty of sunshine.

On my private farm there are fields that are seven years old from which we obtain from two to three cuttings each season. To obtain maximum results under our conditions in Southern Alberta irrigation should be practiced, for with irrigation a heavy yield for each cutting may be counted on.

In my judgment alfalfa will become in time the leading crop on the irrigated lands in the Province, and eventually one of the most important industries of these districts will be the feeding of cattle, sheep and hogs. Very sincerely,

(Signed) W. H. FAIRFIELD, Superintendent.

Timothy.

Alberta soil has proved itself particularly adaptable to the growth of timothy, and returns large yields in this crop. It has a fine head and a sturdy stock, and grows to a good height. Three tons to the acre is no unusual crop, and it finds a ready market at from \$12 to \$18 per ton.

Last year a farmer at High River raised under irrigation a crop which he sold for \$52 an acre.

Owing to the ever increasing development in British Columbia and the Yukon, these sections will afford a sure market for the timothy crop of Southern Alberta.

Sugar Beets.

No industry lends itself more readily to profitable development under irrigation in Southern Alberta than sugar beet production. With a view to encouraging beet growing, the Canadian Pacific Railway has arranged to reduce its transportation charges on beets from points in the irrigation block, east of Calgary, to the nearest sugar factory, located some 200 miles from that city. The Provincial Government pays a bonus on beets through the sugar companies, and other industries contribute as well toward the rapid development of this important industry. The result is that the price paid to farmers for sugar beets at the nearest railway station in the irrigation block has been fixed at \$5.00 per ton f.o.b. cars. The average price paid for beets for the whole of the United States according to the last census was only \$4.18 per ton. In the State of Minnesota a minimum price of \$4.25 per ton has been established by law. The price paid for beets in Utah, one of the foremost of beet growing States, was \$4.25 a ton, with an average yield of 11.4 tons an acre. It is generally considered that 15 to 16 tons to the acre is a fair crop. In the State of Washington up to 32½ tons an acre were produced by actual weight. It is only a question of a year or two when factories

will be established within the block itself; the transportation cost will then be saved to the farmer, and the beets will net him from \$5.50 to \$5.60 a ton at the station.

The most favorable soil for sugar beets is conceded to be a soil which carries a generous quantity of sand. A clay soil with a tendency to bake is the most unfavorable. The former class of soil abounds almost everywhere in the irrigation block. It is also a well known fact that the farther north the sugar beet can be successfully grown, other things being equal, the better the result. The reason for this is that the long cloudless days of northern latitudes increase the activity of the chlorophyl cells of the beet leaves, which elaborate the sugar, so that a greater quantity of sugar may be made in proportion to the area of leaf surface.

Three samples of sugar beets, selected at random from fields in the company's irrigation block at Strathmore and Gleichen, during the season of 1907, in a test of them made by the Knight Sugar Company of Raymond, Alberta, showed co-efficient of purity 88.1 per cent. and 19.2 per cent. sugar in the beet. This is an exceptionally good showing when the fact is taken into consideration that beet sugar factories in the States are paying the highest market price for beets that test as high as 80 per cent. co-efficient and 12 per cent. sugar in the beet.

It may here be mentioned that the average percentage of sugar in beet, in connection with a series of analysis of Montana grown beets in 1898, was only 11.2, while the total average for Montana analyses for 1897, 1898 and 1899 was 12.1; even in Utah, one of the best beet sugar producing States, the percentage was only 14.3 for the above mentioned period. It may, therefore, be safely concluded that Alberta possesses unequalled advantages on the score of the quality of the beets that can here be produced.

The labor problem has always been regarded as the most serious one in connection with sugar beet culture. In this respect the irrigation block is fortunately situated. The Blackfoot Indian Reserve is located contiguous to the block. The Indians take considerable interest in farm work, and generally hire out on hay contracts and similar farm work during the season.

Live Stock

In studying the economic side of irrigation, the first fact that must be clearly grasped is, that the back-bone and foundation of any irrigation enterprise is not by any means the production of either fruits, cereals, roots or garden truck, but

the feeding and finishing of live stock and the development of dairying in all its branches. This has been the history of irrigation expansion in every State of the Union. The proof of this contention is that the total irrigated acreage in crops in the United States at the time of the decennial census was sixty-four per cent. in hay and forage. The actual figures are: Total acreage, 5,712,000 acres; in hay and forage 3,666,000 acres. This tells the tale.

The lands embraced within the Canadian Pacific irrigation block are destined to serve the same purpose in regard to the highest development of the live stock industry, as do the corn growing States tributary to the great market centres of the Union, and the irrigated valleys of the Western States. The time is close at hand when most of the live stock produced in Alberta, and now marketed in a more or less unfinished condition, will be sent to the rich alfalfa-growing lands east of Calgary, there to be put in prime shape before being exported or slaughtered. A home market will thus be made available for all the fodder that can be produced on our irrigated lands at highly remunerative prices, and with the additional advantage of having the feed consumed on the irrigated farm and ultimately returned to the soil that grew it, thus maintaining the fertility for which these lands have already gained renown.

Horses.

In breeding horses, Southern Alberta occupies a somewhat similar position to Canada that Kentucky does to the United States. Owing to its high altitude, dry and invigorating atmosphere, short and mild winters, and its nutritious grasses and inexhaustible supply of clear, cold water, it is pre-eminently adapted for breeding horses, and the Southern Alberta animal has already become noted for its endurance, lung power and perfect freedom from hereditary and other diseases. There are in Southern Alberta several grades of horses, varying in point of quality from the hardy Indian pony (cayuse) to the beautiful well-formed thoroughbred.

Heavy draught horses are now finding a ready sale at highly paying prices. Teams, weighing 3,000 lbs. and upward, are worth \$500 and more. Between 2,500 and 3,000 lbs., the average price would be \$355, and the value of teams weighing between 2,000 and 2,400 lbs., is \$250 and upward, according to quality.

Owing to the mildness of the climate, horses can be wintered outside at a nominal expense, consequently, no country in the world can compare with Southern Alberta in horse raising.

Inasmuch as it costs no more in Southern Alberta to raise



Party of Landseekers from the United States Just Arrived at Strathmore in Two of the Company's Private Cars.

a four-year-old colt than a steer of the same age, it will be seen that horse production here, with the necessary capital, is an easy road to success.

Cattle.

We have already briefly referred to the question of beef production, with special reference to Southern Alberta's nutritious grasses. The feeding of the cured prairie grasses puts a finish on beef almost equal to grain. Southern Alberta is now supplying the province of British Columbia with beef, as well as the Yukon Territory. In addition a large export business to Great Britain is done.

It is a fact that the cattle of this section are of much better quality and breeding than the average run of range stock in the Western States. The best pure-bred bulls are being generously used. It is an interesting fact that the City of Calgary is the home of the largest individual pure-bred cattle auction in the world. This sale takes place in the month of April each year, and on that occasion stockmen gather from far and near to purchase their bulls and to transact other business. Shorthorns, Herefords, Polled Angus and Galloways are the chief breeds, while a few Holsteins and Ayrshires are produced.

For the smaller breeders, while dairying and beef production must necessarily go hand in hand, a good milking strain of Shorthorns is found the most profitable.

To show what kind of cattle are produced, it may be mentioned that a train-load of four-year-old steers from a ranch near Cochrane, after being driven 140 miles, and shipped by rail 2,300 miles to Montreal, weighed at the end of the trip, on the average, 1,385 lbs. Four-year-olds and long threes have during the past four years netted the owners from \$40 to \$50 on the range; three-year-olds and good cows, \$32 to \$37 each; old cows from \$24 to \$28. Calves from six to eight months old are worth from \$10 to \$14. However, prices seem to be advancing, and one shipment of cattle from Alberta to Chicago last fall averaged \$70 a head, ranging in price from \$53.34 to \$85.18.

Sheep.

Sheep, in common with other stock, have always prospered on native Alberta grasses. With the growth of alfalfa and field peas on our irrigated lands will come a marked extension of the sheep-raising industry, and the ever-increasing population in the eastern part of Western Canada, where, for climatic and other reasons, stock raising is not profitable, will forever guarantee a satisfactory market.

Those engaged in sheep raising are enjoying unparalleled prosperity. Mutton and wool now command top prices. Flock-masters in Alberta will not be affected for many years to come by the great fluctuations in sheep products. Woollen mills are being established in the West and a good local market for mutton is available in British Columbia, the Yukon, and the Province of Manitoba. The principal market for Alberta-grown mutton is at present the Province of British Columbia and the Yukon Territory. The requirements of the Province of Manitoba are not as yet very considerable, but with the large growth of urban population and the gradual acquirement of a taste for mutton, noticeable all over the civilized world, it is quite certain that Manitoba will in time become a valuable market for Alberta mutton. During the past year some 5,000 head of Alberta sheep were sent to the Manitoba market, and no more being available, it was found necessary to draw upon the Province of Ontario for a considerable number. These sheep were thus sent some 2,000 miles to supply a market right at the front door of Alberta. The markets in British Columbia and the Yukon are susceptible of expansion, as considerable mutton is now being brought in from the United States and the colony of New South Wales, amounting to over 20,000 carcasses annually, which also might be supplied from Alberta.

Hogs.

As might be expected in a district where the dairy industry is growing so rapidly, hog raising, affording as it does, the most economical method of realizing the largest profits from skimmed milk and other dairy by-products, is a very important branch of farming in Southern Alberta. The soil conditions and the climate, which are so eminently suited for dairying, are also productive of those crops which make the cheapest pork.

As a foundation for winter feeding, all root crops can be grown with great success under irrigation. Large crops of turnips, beets or mangolds, are produced with ordinary field cultivation.

The mildness of the winter season makes it unnecessary to have the costly buildings which are essential to profitable feeding in the winter time in the colder climates, thus enabling farmers of moderate means to have fat hogs to sell when the highest prices are obtainable, during the late winter and early spring months. For some years past the fluctuation in prices has been very slight, the net prices received by the farmers being seldom under five cents in the autumn and six cents in the spring and summer months (live weight), and at these prices farmers have made good profits.

Calgary, the live stock centre of Alberta, has an excellent pork-packing establishment where top prices are paid.

The irrigated area of Southern Alberta is indeed "the hog man's Klondike." Each year is witnessing a large increase in the fattening of hogs in the Bow River Valley. One cause of this is the unprecedented fattening capacity of barley and field peas. The production of an acre of barley costs just about one-half of what an acre of corn does, and will fatten one-third more hogs. The cost of production of an acre of peas does not exceed \$1.50, only about one-fifth of what it costs to cultivate an acre of corn, and a fourth more hogs can be fattened from the produce of the same amount of ground. Pea-fed hogs are becoming famous all through America for the excellent quality of the bacon.

Dairying.

The Provincial Government maintains at Calgary the largest and most important "dairy station" and cold storage plant in the West. Some years ago our dairymen became dissatisfied with the private creameries which were then in operation throughout the country, and asked the Government to take charge of these institutions. The Dominion authorities fell in with the request, placed experts at the disposal of the dairymen, and eventually organized a chain of co-operative creameries all through the country. These creameries are subject to the control of the patrons, through boards of directors, under absolute Government management. Most of the patrons separate their milk at home by means of hand separators and bring their cream to the dairy station from three to four times a week. The cream is then carefully tested and weighed, and at the end of every month each patron gets credit for the equivalent of his cream in butter, and receives a cash advance of ten cents per pound.

At the end of 30 or 60 days a cheque for the balance due each patron is sent to him from the Department of Agriculture. A uniform charge of four cents a pound is made by the Government for manufacturing, and one cent a pound is deducted to create a fund for purchasing buildings and machinery, of which the patrons become part owners to the extent of the amount which they contribute in this manner. Any settler having the means to procure a few milch cows can thus insure a cash income from the first day he starts on his land. The butter is sold principally in British Columbia and the Yukon district. A trade is also being developed by the Government in China and in Japan. This creamery service has recently been placed under the control of the Provincial Government.

Here is our dairying combination: A never-ceasing abundance of the best food for cows; our nutritious native grasses, supplemented by alfalfa and peas; an abundance of fresh, pure water; the absence of mosquitoes and of flies, with our provincial creameries taking charge of the cream, manufacturing it into butter and finding the best market, all at a nominal charge of four cents per pound, a cheque to the farmer the first of every month and a home market already greatly in excess of the production and constantly and rapidly expanding.

The year 1908 has been the most successful dairy season since creameries were established in Alberta. From less than four hundred pounds of butter in 1902, the output has steadily increased until 776,241 lbs. were manufactured in 1908, which was sold at an average price per pound of 25½ cents.

The following table will show the volume of increase in output during the past three years:—

Year	No. Creameries	Lbs. Butter Manuf'd	Value at Creameries	Average price at	
				No. Patrons	Creameries
1904.....	9	416,195	\$ 85,565.34	600	20.54
1905.....	12	813,430	173,671.40	1,217	21.35
1906.....	18	1,050,356	222,959.11	1,755	21.23
1907.....	21	653,208	151,290.28	1,267	23.16
1908.....	21	776,241	197,411.24	1,370	25.43

Poultry Raising

There is a large field in Southern Alberta for the industrious poultry raiser. A few acres and a few hundred chickens will yield a good income. With eggs at 25 to 50 cents a dozen and dressed poultry at from 15 to 22 cents a pound on the Calgary market, little need be said about the profits of this valuable feature of the Southern Alberta farm.

An excellent market exists in the province of British Columbia for poultry products, and this market is enlarging every year. An egg gathering station is maintained in Calgary by the Government, where the highest market price is paid for eggs, and from which periodical shipments are made to Western points. No less than \$367,950 worth of poultry and eggs were imported into Calgary by jobbers alone during 1908 for distribution at Alberta and British Columbia points. It only remains for our farmers to go into the poultry business on a larger scale in order to have this money circulated in Al-

berta. Our climate is ideal for poultry raising, and our market is the best in Canada.

Turkey raising has come to be an industry of importance. In parts of this section, where range is good, thousands of these birds grow and fatten for market in the coast cities, and thousands of dollars are brought into the country every year through this business alone. Where large areas of wheat stubble may be utilized for forage ground, the expense of putting turkeys upon the market is small, indeed.

Markets

Farm land values are largely governed by six things—climate, soil, moisture, settlement, railroads and markets. But the greatest of these is Markets. No matter how fine the climate, or how rich the soil, or how sufficient the water supply, without a market for that which the land produces there will be found no settlement.

In support of the foregoing statement the lands of Western Canada may be used as an illustration. Lands that a few years ago could not be sold for a dollar an acre—in fact, they could not be sold at all, are to-day attracting more people than any other agricultural section of the world. Here for centuries have been the climate, the soil and the moisture. But, possessing these three great natural advantages, it was still practically uninhabited. It was lacking that one great essential—a market. Here were millions of acres possessed of great potential wealth that were but awaiting the awakening touch of man to be added to the available wealth of the world. The awakening came slowly, and it was only after the promoters of the Canadian Pacific Railway had constructed that road, and spent years in educational work, that the world at large began to realize that here was a country possessing all the natural advantages claimed by older communities; that land here just as good as could be found in the older settlements could be had almost for the asking.

With the realization of the foregoing facts came the people, who found that a railway had preceded them and that markets already existed for anything that they might care to raise. These markets are capable of great expansion, and assure to the agriculturist the prevailing prices of the world. An assured market means added value to every acre of land in Western Canada, and the near future will see lands that are now selling at exceptionally low prices begin to increase in value, just as they have done in the United States during the past few years. For all of which, markets made possible by the railways, are responsible.



Landseekers Inspecting the Strathmore Irrigated Demonstration Farm.

Domestic Water Supply

Anywhere within this company's tract of land in the Bow River Valley, an abundance of good water may be obtained by driving a well from 50 to 100 feet. The cost ranges from \$2.25 to \$2.75 per foot completed.

Rural Telephones

One of the advantages awaiting the coming of the settler in the Irrigation Block is the telephone. In the construction of this irrigation system it was necessary to erect a telephone line between the various engineering headquarters and Calgary. The Government of Alberta controls all telephone lines in that province and is now constructing a rural system throughout the Irrigation Block which will be operated at cost for the benefit of the settlers. This, in conjunction with the company's system will give a most economical, complete and up-to-date rural service.

Experimental and Demonstration Farms

As a general rule, once a corporation that is in the land business has sold a new settler a farm, its interest in the transaction ceases. The Canadian Pacific Railway Company is in an entirely different position. When a parcel of land has been finally sold, that company's interest in the transaction does not cease. In fact, it only commences. The rail-

way company is vastly interested in the success of every individual purchaser, who at once becomes a valued patron of the road.

The Company realises that the bulk of the settlers coming into occupation on its irrigated lands, will be more or less ignorant of the proper methods of handling and applying water, and it, therefore, places at their disposal expert advice and assistance. The Company operates at central points farms devoted to demonstrating the agricultural possibilities of the tract. The staff of the company's demonstration farms is always ready to assist new colonists. On some of the farms are maintained pure-bred bulls and boars for the free use of the settlers.

The maintenance of these demonstration farms is in line with the general policy of endeavoring to create a prosperous agricultural community. The Company realises the difference between land selling and colonization, and that a somewhat paternal administration accelerates the results the Company is striving for, namely, the greatest possible measure of development in the shortest possible time.

Advanced Development Policy

In its efforts to encourage actual settlement at the earliest possible moment, the Company goes a step further. A great many purchasers of land are unable to move on to their farms at once and prefer to have the preliminary work done by contract, so as to get a crop growing and a cash revenue coming in shortly after going into occupation the following year. The Company, therefore, agrees to initiate farming operations for absentee land owners on a contract basis. No

charge is made for the time of the employees devoted to supervising and inspecting this work. Only a small percentage is collected to cover actual cash outlay on the part of the Company. All work is undertaken by responsible parties, and it goes without saying that the Company, by reason of its being in a position to contract for thousands of acres of breaking, harrowing, discing and seeding annually, is in a position to demand from the contractors the very best class of work at the lowest prices going. This is another advanced feature of the colonization undertaking the Canadian Pacific Railway has in hand, east of Calgary.

Selling Prices and Terms

As has been pointed out in the preceding pages, the main aim and object of the Canadian Pacific Railway in colonizing its three million acre tract is the creation of the greatest amount of traffic. Under the circumstances, the Company has decided to place this land upon the market at prices and upon terms that will enable the practical farmer with small capital to create a prosperous home within the Irrigation Block. The Company wants the settler to put the greatest possible portion of his capital into productive improvements. The Company is more interested in his success than it is in collecting from him the largest possible cash payment. Only a nominal first payment is asked.

Non-irrigable lands are sold at prices ranging up to \$15.00 per acre and irrigable lands up to \$25.00 per acre. The terms of payment are such that the settler will have made more out of his land, long before his final payment becomes due, than the land has cost him. The uniform terms upon which the Company disposes of its lands are: One-tenth of the purchase price in cash and the balance in nine equal annual instalments with interest at 6 per cent. on the unpaid balance.

Cheaper Than Homesteads

A great many farmers visiting Western Canada in search of new homes, come with the idea of taking up Government lands under the Homestead Regulations. It can readily be shown, however, that with the liberal terms offered in the Irrigation Block, the average farmer will, in the end, be better off in settling there. In the first place, he does not have to acquire land thirty to forty miles from transportation facilities in the hope of railways being ultimately extended. He can obtain land in the Block within a few miles of the main

line of the Canadian Pacific Railway, and in close proximity to a shipping point.

Every practical farmer, and particularly every wheat grower, realises the enormous importance of the cost of transportation on agricultural products from the farm to the shipping point. The statement has frequently been made, that a farmer can better afford to pay \$25.00 per acre for land within a few miles of a shipping point, than to accept a similar area of land, of the same quality, as a free gift, 20 to 30 miles from transportation facilities. The explanation is obvious. The cost of hauling produce over the greater distance would, in a very few years, more than cover the price asked for the land lying close to the railway station. The perpetual charge against every bushel of grain raised by the farmer far removed from transportation facilities is so considerable that it would, in itself, represent a good profit on a year's transactions.

Some of the foremost experts in farm economics have devoted considerable attention to investigating the cost of hauling crops from the farm to the shipping point. Statistics have been worked out which bring the cost down to a fraction of a cent, and the conclusion has been arrived at that leaks of this nature are responsible for many of the failures on Western American farms. The man who succeeds is he who aims at conducting his business on a sound basis and takes into proper consideration every item which enters into the cost of operating his farm. The transportation item from the farm to the shipping point is one of the most important.

It will be readily understood, that with the great rush of people that has taken place into Western Canada during recent years, all homesteads of any value at all, within close proximity to transportation facilities, have long ago passed out of the hands of the Government, and such being the case, it is submitted that it will pay the practical farmer better to purchase land within the Irrigation Block, than to accept as a free gift a homestead lying remote from transportation facilities and perform the irksome conditions imposed by the Homestead Regulations.

Co-operative Home Making

The railway company has grasped "time by the forelock" and has prepared its propaganda for the colonization of the Irrigation Block on a broad and comprehensive basis. In addition to the regular terms outlined in the foregoing, the company is prepared to offer an alternative proposition to those who do not care to assume the financial obligation in-



Purebred Clydesdale Horses on an Irrigated Farm.

volved in an outright purchase. The company's offer is nothing less than a general invitation to farmers in over-crowded districts to come to Southern Alberta and go into partnership with the Canadian Pacific Railway. This is no mere catch phrase. It means what it says. The company will offer new settlers a land contract under which the land pays for itself. No crop, no payment.

Perhaps the most striking feature of this novel departure from past policy is the apparent confidence the company has in the ability of the land to pay for itself. The record of the past few years, particularly the present season, has, no doubt, something to do with the determination of the railway company to extend to farmers this unique proposal. To the average well-informed observer, it looks a safe proposition, when it is taken into consideration that a vast number of farmers in Southern Alberta have for years been getting sufficient out of the land to pay for it in full almost **every year**. Be that as it may, the proposition is undoubtedly one that will appeal to the average farmer.

Homes from "Uncle Sam" or from the Canadian Pacific

This booklet will, no doubt, fall into the hands of many who have seriously considered taking up lands under one of the large Reclamation Projects now undertaken by the United

States Government. It can readily be shown that the colonization enterprise of the Canadian Pacific Railway in Southern Alberta offers many advantages over the former.

(1) Those who purchase land from the Canadian Pacific are absolutely unhampered by any conditions or restrictions whatever in regard to their personal liberty or their plans for developing their lands. The prices of the company's irrigated lands are only about one-half of what the United States Government offers land at. It is not necessary to go into occupation within any given time or to perform any residence conditions whatever such as it is under the Reclamation Act, where the ordinary Homestead conditions must be fulfilled.

(2) The Canadian Pacific Railway offers an absolute guarantee of the delivery of water at an annual maintenance charge of 50c. per acre. The United States Government does nothing of the kind. After the government project is completed it is turned over to a Water Users' Association, which may ask \$1.00 per acre or \$5.00 per acre for supplying water, or it may fail to deliver water altogether.

(3) The Canadian Pacific delivers water to the highest point on the boundary of each farm sold, constructing the supply lateral free of charge. Under the Reclamation Act only the main canals are provided by the Government, the people themselves must build the laterals.

(4) The title to the water given under the Reclamation Act is simply a right acquired under the law of the state within which the project is located, and subject to all the limitations and litigation that has characterized these water rights ever since irrigation was undertaken in the Western States.

On the other hand, the Canadian Pacific gives an absolute title to the water, which is just as good as the title to the land. The two cannot be separated. This title is on record in the Government Land Titles Office and can never be disturbed.

(5) If any considerable portion of the system is destroyed, such as occurs from time to time in connection with the very finest and most expensive irrigation systems, by the elements, the Canadian Pacific Railway will rebuild it and repair any damage done at its own expense. Under the Reclamation Act this work must be undertaken by the settlers themselves entirely at their own expense. There is thus the risk of a farmer settling on one of the Reclamation projects and paying a high price for the land, having at any time to tax his land an additional \$10.00 to \$15.00 per acre to repair any such large damages.

Secure a Home Now

While the average farmer will secure land with a view to home-making, he need not eliminate entirely the speculative feature from his proposed investment. As much clear profit has been made out of the farms in Western Canada from enhanced land values, as from the products of the soil itself. This is the general experience in all new countries. The fact should not be lost sight of that the only elements that give value to land are population and transportation. Without these, the best land is worthless. In the Irrigation Block, transportation facilities of the very best already exist, and, with the system of branch lines contemplated, the area will be as well served as any in Western Canada. The inauguration of the crop payment plan ensures actual settlement within the Irrigation Block at the earliest moment, and consequently substantial development and increased land values within a short period. The capitalist speculator is not wanted, but the farmer speculator is welcomed with open arms.

The pendulum of prices on most commodities swings backwards and forwards. Not so, however, with reference to the value of lands. They are going higher every year, and because each year sees the number of people to be fed increasing, nothing can check the upward movement of land. The time to secure land is now, while it is cheap, so that advantage may be taken of the rise in values which is rapidly increasing with the settlement of the land. If you own land now that is worth \$50 to \$100 per acre, you can sell it and secure four acres in Southern Alberta of the most productive land in the world, for every acre you now own elsewhere. The increase in land values here will be as marked as it has been in older settled communities. You can readily estimate what this increase will mean to you.

Low Taxation in Southern Alberta

The rural taxation system of Southern Alberta is based entirely on the land. Improvements, live stock, chattels or personal property of any kind is exempt absolutely. The Province pays a large share of the cost of education and public works, and as it derives its principal revenue from the Federal Government by annual per capita grant, it is unnecessary to levy any considerable local taxes.

As soon as the Canadian Pacific Railway disposes of a parcel of land the same becomes liable for Local Improvement taxes and also subject to the General Provincial Educa-

tional Tax of $1\frac{1}{4}$ cents per acre until such time as a school district is established embracing said area, when the school taxes are somewhat increased for the support of a local school, but cannot be levied in excess of \$16.00 per quarter section.

The following table will furnish some idea of the difference in taxes paid in Alberta and in some of the Middle and Western States:—

That as nearly as possible an actual comparison may be made, the taxes paid on a farm of 320 acres located in the Calgary district is taken as a fair example of the amount of taxes paid in Alberta, while the tax schedules furnished by various county treasurers in the States have been used in arriving at the amount of taxes that would be collected there on a piece of farm land with improvements and personal property of the same valuation.

	Assessed Valuation.	Taxes.
Calgary District		\$ 25.60
Pottawattamie County, Iowa	\$11,000	319.00
Gallatin County, Mont.	11,000	232.00
Cook County, Ill.	8,800	278.96

In selecting the foregoing figures, those dealing with the States have not been selected from counties with the highest or the lowest tax rate, but from counties that most nearly meet the average tax of all the counties in their respective States.

School System

The Public School system established in the Province of Alberta is well abreast of the times. Its management is vested in one of the Ministers of the Government. The organization of school districts is optional with the settlers. Districts formed cannot exceed five miles in length or breadth, and must contain at least four actual residents and twelve children between the ages of five and sixteen.

The cost of maintaining the schools is small, owing to the liberal assistance given by the Government; the public grants paid to each school are from \$250.00 to \$300.00 per year. Each teacher employed must have a certificate of a recognized standard of education, and a thorough system of inspection is inaugurated, each school being visited twice during the year. In the schools of the larger towns, the higher branches of study are taught and pupils are prepared for university matriculation and teachers' certificates.

Calgary alone has twelve public schools, including a High

School complete in every essential, the Provincial Normal School, the Western Canada College for boys, the St. Hilda's College for Ladies, and the St. Mary's Convent for girls.

The City of Calgary

The Commercial Centre of Alberta.

"And ever we come back to the pulsing heart of this great foothill country, fascinating Calgary. One can study on its streets London fashions and fat stock, prize horses and beaded moccasins, the very newest capers in automobiles and the most ancient and approved aroma of the Plain Indians." ("Saturday Evening Post.")

Calgary is a live city, with upwards of 300 retail stores, 106 wholesalers, 43 manufacturers, 13 banks, branches of practically all the friendly societies, one morning and two afternoon daily papers, several weekly and monthly publications, five clubs (The Ranchers, St. Mary's, Alberta, Canadian and Young Men's), and Young Men's Christian Association building in course of construction, when completed will cost \$90,000: excellent public schools, and various other educational institutions, including High School, Western Canada College for boys, St. Hilda's for girls, and Provincial Normal School completed at a cost of over \$150,000; General Offices of the Canadian Pacific Railway western officials, Government offices, such as Land Titles Office, Courthouse, and Provincial Public Works Office, beautiful churches, street letter delivery, in fact, everything necessary to make an up-to-date progressive city of nearly 25,000 population. The famous Calgary sandstone, which is used so extensively in the erection of business blocks, public buildings, wholesale houses, and manufacturing plants, gives the city a beautiful and substantial appearance, which is most favorably commented upon by all visitors. Calgary's business blocks, schools, churches, and many of its residences would be a credit to the larger Eastern and United States cities. A street car service is just being inaugurated, and will add one more convenience to the city life of Calgary, and two companies have only recently completed very large street paving contracts. The building campaign planned for 1909 will be one of the most aggressive in the history of the city.

The city owns its sewer, electric light and waterworks systems, and is now completing a gravity water system at a cost of \$340,000. Water will by this means be taken from a point ten miles west of the city, and in sufficient quantity to supply a city of at least 200,000 people. Brick and tile clay are to be found in large quantities in the immediate vicinity.

Fuel and Power

Calgary has an unlimited supply of both anthracite and bituminous coal surrounding the city. Besides the finest and cheapest of domestic coals, there is now under way the construction of water power plants capable of developing 100,000 horse power.

Large coal deposits exist at many points in the Irrigation Block. Settlers can purchase such fuel at \$2.50 per load of two tons at the mines, or can mine the coal themselves free of charge where outcrops exist.

Railroads

More railroads are projected into Calgary than at any other point west of Winnipeg. Within a few years the city will be entered by the Great Northern, Canadian Northern and the Grand Trunk Pacific Railways, the two latter having already located their lines into that city. Calgary is a general divisional point of the Canadian Pacific Railway, and the lines from Edmonton and Macleod start from here. The annual pay-roll of the Canadian Pacific Railway at Calgary is considerably over a million dollars and it employs full 1,000 men.

Customs and Quarantine

Settlers are allowed to bring in free of duty, wearing apparel, also household goods and farm machinery that have been in use for at least six months, one animal each of neat stock or horses for each ten acres of land purchased, and one head of sheep for each acre. Cattle, horses and sheep will be passed only upon a certificate of a quarantine inspector. Swine are subject to quarantine and should not be brought into Canada.

Cost of Living and Home-Making in Southern Alberta

In the preceding pages information has been given in regard to the productiveness of the lands embraced within the Irrigation Block, the markets for agricultural products raised there, prices and terms upon which farms can be secured, and other information that may be of interest to the homeseeker.

To the farmer with limited resources, however, it is important to know how far his capital will go and how it should be expended. The cost of living is also a vital feature entering into his calculations. The company is anxious that every person who settles in the Irrigation Block shall become prosperous and satisfied, and it is, therefore, important that they should labor under no misapprehension in regard to the conditions prevailing in this country, so that they may not overestimate their resources or fail to lay out their capital to the best advantage.

Wishing to obtain absolutely correct information, the company is quoting below the actual prices prevailing as

Calgary on the 10th of November, 1908, as secured from the retail merchants. It might be mentioned that a discount of about 5 per cent. is often given for cash, and that there is no reason why prices in the various towns throughout the Irrigation Block on the commodities quoted should be any higher than they are at Calgary. In fact, owing to the smaller expenses in connection with carrying on business in a small town, the prices should, in some cases, at least, be lower.

The wages paid ordinary farm laborers ranges from \$15.00 per month upwards. Skilled hands generally receive \$25.00 per month for a year's engagement and \$30 to \$40 per month for a summer's job.

FUEL.

Lethbridge Coal	\$6.50
Clover Bar	6.50
Galbraith Domestic	5.50
Coal in Irrigation Block	1.50 to \$2 at mine

LUMBER AND BUILDING MATERIAL.

Brick	\$12.00 to \$15.00 per M.
Cement	3.20 per bbl.
Lime	1.50 per bbl.

No. 1 Dimension.

2x4 12 to 16 S.I.S.I.E.	\$23.00
2x6 ditto	23.00
2x8 ditto	23.00
2x10 ditto	23.00
2x12 ditto	24.00

Add \$1.00 per M for every 2 inches over 12 inches wide.

Add \$1.00 per M for every 2 ft. over 12 ft. long.

10 ft. stock same price as 20 ft.

Cedar dimension \$2.00 less than above.

3 in. plank, 10 to 16, rough \$25.00

4x4, 10 to 16, rough..... 25.00

6x6. ditto..... 25.00

8x8, and larger, 10 to 16, rough..... 26.00

Add \$1.00 per M for every 2 ft. over 16 ft.

No. 1 Common Boards.

4 in. wide, S.I.S.	\$19.00
6 in. ditto	21.00
8 in. ditto	23.00
10 in. ditto	25.00
12 in. ditto	24.00
Cedar boards, \$1.00 per M less.	
1-2 in. Shiplap	\$16.00
4 in. "	20.00
6 in. "	23.00
8 in. and wider Shiplap	25.00
4 in. and 6 in. No. 1 Mountain Flooring	37.00
4 in. and 6 in. No. 2 Mountain Flooring	34.00
4 in. and 6 in. No. 3 Mountain Flooring	24.00
4 in. and 6 in. No. 1 Ceiling	37.00

Hardware.

Nails	4½c per lb.
Barbed Wire	4½c. per lb.
Tar Paper	\$1.00 per roll.
Building Paper	.90c per roll.
Gaspipe, 1-inch	.10c per foot.
Gaspipe—¾-inch	.6½c per ft.
Stoves, Tools, Tinware	10 p.c. above St. Paul

Harness and Saddlery.

Good average work harness	\$40.00 per set
Collars, hand-made	\$3.50 per set.
Single Buggy Harness	\$15.00 and up.
Halters	.85c to \$2.00
Saddles	\$4.50 to \$75.00
Ropes, Whips, Blankets, etc.	Same as St. Paul

Meats.

Steaks, round	12½c
Steaks, Porterhouse	18c
Rouste Rib	15c
Rouste	8c to 10c
Corned Beef	8c to 10c
Mutton, Side	14c
Mutton, Chops	18c
Mutton, Fore qrtr.	15c
Pork	16c
Sausage	12½c
Dressed Chicken	15c to 25c
Lard Bulk	15c
Salmon Steaks	12½c to 15c
Turkeys	25c to 32c

Pure Bred Stock.

Bulls	\$50.00 to \$200
Hoffers	40 to 100
Rams	15 to 40
Bours	12 to 30
Sows	10 to 40

Farm Implements (Canadian).

2-furrow 12-inch Imperial Gang	\$ 65.00
16-disc 18-in. Disc Harrow	49.00
Three section spike tooth Harrow	17.00
Single disc 10-ft. drill	100.00
Mower, 5-ft. cut	65.00
Horse Rake, 10 feet	39.00
Blinder complete, 8 feet	180.00
Wagon complete, 3-ton	90.00

Farm Implements (American).

Gang Plow, Emerson 2-furrow	\$ 90.00
Disc Harrow, 16-16	47.00
Harrow, 3-section spike tooth	30.00
Drill, 16 disc, 10 ft.	115.00
Mower, 5 foot cut	65.00
Horse Rake, 10 ft.	38.00
Blinder complete, 8 ft.	175.00
Wagon complete, 3-ton	90.00

Dry Goods and Clothing.

Staple and Fancy Woollen Goods	10 to 25 p.c. cheaper than St. Paul
Cotton Goods	25 p.c. higher
Boots and Shoes	10 p.c. higher
Silks	10 p.c. cheaper

Furniture.

Wood Seat Chairs	55c upwards
Leather Seated Chairs	\$ 1.50
Common Kitchen Tables	3.25
Dining Tables	6.90
Sideboards	13.40
Bureaus	8.85
Washstands	3.85
Kitchen Cupb'lds	12.50
Iron Beds	3.55
Wire Springs	2.90
Mattresses	2.55
Wire Camp Cots	2.55
Canvas Camp Cots	2.00
Pillows, 3-lbs. each	60c
Couches	6.35
Window Shades	.40
Sheeting, plain or twill, per yard	30c
Sheets, per pair	1.50
Blankets white, pr.	3.65
Blankets, grey, pr.	2.10
Carpets, All-Wool and Union	35-52c
Carpet Squares, All-Wool	7.45
Carpet Squares, All-Wool	4.45
Toilet Sets	1.75

Freight Rates on Settlers' Effects from Principal Points in the United States to Calgary.

(Subject to change at any time)

Portland, Oregon, via Sumas, B.C.	
Carload lots of 24,000 lbs.	\$152.00
Less than carload lots	1.52 per cwt.
Chicago, via N. Portal, Sask.	
Carload lots of 24,000 lbs.	\$85.00
Less than carload lots	1.27 per cwt.
Kansas City, via N. Portal, Sask.	
Carload lots of 24,000 lbs.	\$101.00
Less than carload lots	1.52 per cwt.
Omaha, via N. Portal, Sask.	
Carload lots of 24,000 lbs.	\$99.00
Less than carload lots	1.47 per cwt.
St. Paul, via N. Portal, Sask.	
Carload lots of 24,000 lbs.	\$45.00
Less than carload lots	0.67 per cwt.
Denver, via St. Paul and N. Portal, Sask.	
Carload lots of 24,000 lbs.	\$175.00
Less than carload lots	2.52 per cwt.
New York, via Buffalo.	
Carload lots of 24,000 lbs.	\$195.60
Less than carload lots	1.63 per cwt.
New York, via Ogdensburg.	
Carload lots of 24,000 lbs.	\$173.40
Less than carload lots	1.50 per cwt.
Buffalo, N.Y.	
Carload lots of 24,000 lbs.	\$156.00
Less than carload lots	1.24 per cwt.
Helena, Montana.	
Carload lots of 24,000 lbs.	\$109.00
Less than carload lots	1.36 per cwt.
Idaho Falls, Idaho.	
Carload lots of 24,000 lbs.	\$298.40
Less than carload lots	3.32½ per cwt.
Spokane, Wash.	
Carload lots of 24,000 lbs.	\$118.40
Less than carload lots	1.32½ per cwt.
From Ontario Points.	
Carload lots of 24,000 lbs.	\$136.80
Less than carload lots	1.14 per cwt.

First Class Passenger Rates from Points in the United States to Calgary and Return

(Subject to change at any time)

Atchison, Kan.	\$41.00	St. Louis, Mo.	\$44.00
Chicago, Ill.	41.00	St. Joseph, Mo.	41.00
Council Bluffs, Iowa	40.00	Sioux City, Iow.	40.00
Kansas City, Mo.	41.00	Omaha, Neb., via St. Paul.	40.00
Leavenworth, Kan.	41.00	Omaha, Neb., via Lethbridge.	41.50
Minneapolis, Minn.	33.00		
Peoria, Ill.	41.00		
St. Paul, Minn.	33.00		

**Publications of the Canadian Pacific Railway
Colonization Department**

The following publications may be obtained, postage prepaid, on application to the Company, at Calgary, Alberta Canada.

"STARTING A FARM." This book goes into the all important question of the capital required to start a farm in Southern Alberta. It is of interest to the practical farmer, as it gives him an idea of local values compared with those in his own community. It also shows the advantage that a farm in the Bow River Valley offers to the city man as a place to raise his family and acquire wealth, giving him at the same time just the class of information that he requires. No question that the city resident might ask but is answered....FREE

"ANIMAL HUSBANDRY." Diversified farming and stock raising is the foundation upon which all irrigation projects rest. This book gives the business aspect of the industry of the Irrigation Block, and shows that live stock feeding and dairy production on the rich alfalfa meadows there lead to certain success. Every up-to-date farmer nowadays is a stock man, and this book will appeal to that class.....FREE

"THE STAFF OF LIFE," a 45-page folder dealing with winter wheat production, giving land values, markets, expert opinions, and comparative crop statistics.....FREE

"PUBLIC OPINION CONCERNING THE BOW RIVER VALLEY." A 40-page publication giving the opinions of the most prominent writers on the continent, coupled with the statements of farmers actually settled on the land.....FREE

"SETTLER'S GUIDE." A text book, useful to any farmer, giving valuable information in regard to farming practise upon irrigated and non-irrigated lands in northerly latitudes. This work was compiled for the Company at great expense both with regard to time and money.....FIVE CENTS

"HANDBOOK," a 92-page book, printed on heavy paper, giving a splendid series of views of Calgary, farming on the "Irrigation Block" of the Company and general farming operations throughout Southern Alberta. A book that is ornamental and will be a source of pleasure to you.....TWENTY CENT

"PICTURESQUE BOW RIVER VALLEY." A splendid album of views, measuring 10x12 inches, bound with heavy silk cord, and in every respect a work of art, and an interesting souvenir of Southern Alberta. These twenty-four views bring the varied beauties and possibilities of the great Province of Alberta and the Irrigation Block within the range of your visionONE DOLLAR